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The Role of Recreation in Facilitating Gender Integration In the Navy

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John P. Harden

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This project was initiated in response to requests from the fleet to provide Navy leadership with tools to facilitate the integration of women throughout the active duty force. This study explored how Navy Morale, Welfare, and Recreation (MWR) programs could assist Navy leaders with this challenge. Research findings from recreation, sports psychology, and past efforts in diversity management shed light on using recreation to facilitate gender integration. Survey data collected from active duty personnel clarify similarities and differences in men's and women's recreation needs. This data also demonstrated how use of Navy MWR fitness centers impacts key individual and organizational outcomes, such as satisfaction with one's life and intentions to remain in the Navy. Data collected on the first aircraft carrier to deploy with both men and women describes a common foundation on which to build integrated fitness programs aboard ship. Experiences at the Naval Academy emphasize the importance of fitness for both the physical and social outcomes it provides. Interviews and expertise from Navy MWR professionals encourage Navy leadership to look to MWR for facilities and programs that encourage team building, unit cohesion, and gender integration among our active duty force. Lastly, recommendations concerning recreation programming for gender integration are offered.

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Foreword

This project was initiated in response to requests from the fleet to provide Navy leadership with tools to facilitate the integration of women throughout the active duty force. This study explored how Navy Morale, Welfare, and Recreation (MWR) programs could assist Navy leadership with this challenge. Funding for this study was provided through the Chief of Naval Personnel's Studies and Analysis Program. Conceptualization of the study rests with John P. Harden, a leisure and recreational professional with many years of experience in Navy MWR.

While this Management Report is the end product of the project, the authors hope that it will stimulate the use Navy MWR recreation to impact critical organizational outcomes, such as building unit cohesion, and ultimately improving unit and combat effectiveness. The authors also hope that the findings summarized here shed light on how Navy MWR can contribute to key bottom-line outcomes. The authors thank the many MWR professionals who provided their time and expertise in this study, and their ideas and recommendations for how to optimize the growing diversity of our active duty force. Special appreciation is given to Leah Dempsy for her many contributions to the project, including coordinating interviews and focus groups with the Navy MWR professionals involved with the project.

THOMAS A. BLANCO
Director
Personnel and Organizational Assessment Department

Executive Summary

Recent changes in Navy policies permit the assignment of active duty women to almost all types of commands, including ships with a combat mission. Thus, Navy leaders are challenged to institute a significant cultural shift regarding gender roles while maintaining military effectiveness. This report reviews and combines a variety of quantitative and qualitative data to shed light on how fitness and recreational programming can be used to influence positive interpersonal and organizational outcomes, such as unit cohesion, team building, and the integration of women in traditionally all male units.

Findings from Recreation, Sports Psychology, and Military Diversity Management Research

Following the introduction, the report begins with a substantive review of recreation research. Research in this area has shown that gender differences in recreation are well established, and are influenced by several variables. When designing, marketing, and implementing fitness/recreation programs for men and women, knowledge of these differences is important. For example, the reluctance of women to use Navy fitness centers may be due to lack of experience with aerobic and weight-training equipment. In addition, concerns about personal safety on the way to and at facilities are often barriers to women's participation in recreation.

Research from Sports Psychology builds on the recreation research findings by tying cognitive and behavioral interventions to group and organizational outcomes. Interventions designed to facilitate team cohesion have been supported in the research literature, and initial indications confirm that cohesive teams perform at a higher level than less cohesive ones.

The military services have a long history and track record of integrating people from diverse backgrounds. A review of research related to diversity management highlights three dimensions that are key to both structural and attitudinal integration—namely, exposure, education, and enforcement.

These findings set the stage for better understanding how current Navy fitness/recreation programs could enhance key bottom-line outcomes such as unit cohesion, unit performance, and facilitate gender integration in our active duty force. Before these interventions can be tested, knowledge of current fitness/recreation use by active duty men and women is needed.

Gender Differences in the Use of Navy MWR Recreation Facilities and Services

The Navy Leisure Needs Assessment (LNA) Survey data collected from a representative sample of active duty members found both gender similarities and differences in the use of Navy MWR recreation. While both men and women used weight training equipment, men were more likely than women to use free weights, the playing fields, and athletic gear check out; women were more likely to use aerobic equipment and aerobic/weight training classes than men. By understanding the specific needs and preferences of unique customer segments, MWR professionals can be in a better position to satisfy those needs.

Modeling Components of Fitness Use and Organizational Outcomes

Navy MWR recreation facilities and services are provided not only to encourage top physical fitness for our active duty members, but also are believed to impact key organizational outcomes, such as retention. Causal modeling techniques using data from the Navy LNA Survey tested the relationships between the use of Navy fitness and several individual and organizational outcomes. The model confirmed that Navy MWR fitness use was causally related to satisfaction with MWR, which was causally related to satisfaction with free time, satisfaction with life, and intent to remain in the Navy. These data demonstrate that use of Navy fitness facilities/services impacts on key organizational outcomes, such as intent to remain with the organization.

Exercise Behavior Aboard a Combatant U.S. Navy Ship

How truly different are the recreation needs of men and women who make up our active duty force? And how might fitness behaviors be used to facilitate positive organizational outcomes, such as gender integration aboard ship? Men and women assigned to combat ships may be more similar in fitness/exercise habits than expected.

In fact exercise data collected from the USS EISENHOWER, the first aircraft carrier to deploy with men and women in the ship's crew, found few differences in exercise habits by gender. Billeting of women and men in ships for extended periods of time offers a prime opportunity for implementing interventions designed to facilitate organizational change and acceptance of women. Observations of an innovative co-recreational exercise class aboard this ship, known as muscle-robics, provides a model of how fitness classes can be designed to encourage men and women to exercise together.

Sports and Recreation at the U.S. Naval Academy

Interviews conducted at the Naval Academy yielded information on the role of physical education and sports in gender integration. Other means used to promote positive attitudes between men and women midshipmen were also discussed.

Interviews and Focus Groups with Navy MWR Professionals

While researchers and managers debate the possibility of using Navy MWR to facilitate the integration of women, many MWR professionals have already implemented recreational programs for mixed gender crews and customer groups. In fact, some have designed recreational events for large groups of 18- to 21-year-old men and women aboard ships. Interviews and focus groups were used to tap their experiences and obtain their advice.

Attitudes about one's coworkers and other active duty members can also be influenced through fitness activities. A program implemented by a Navy fitness trainer shows how MWR practitioners can create

environments in Navy fitness centers where men and women work out side-by-side. Research suggests that positive interpersonal attitudes from these experiences will spillover into the work environment, thus affecting attitudes regarding coworkers.

Technical Design Elements of MWR Programs

Social interaction theory provides a framework for understanding the technical design elements that impact interpersonal and organizational outcomes. This model highlights the critical role of "front-line" MWR personnel who implement recreation programming. It leads to recommendations regarding training of MWR professionals, and the process of designing programs to contribute to unit cohesion and readiness.

Recreation Programming for Gender Integration

The research and practical experience of MWR professionals highlighted in this report suggest that recreational activities for facilitating gender integration should: (1) require cooperation among the members, as opposed to competition; (2) provide for meaningful, rather than casual interaction; (3) involve common goals; and (4) result in pleasant and rewarding interpersonal contact. A five-step process for designing and implementing recreation programs includes assessment of customer needs, staff training and education, designing inclusive programs, marketing, and evaluation.

The report concludes with the following recommendations:

- Distribute this report to MWR directors and staffs for their review and application; also make the results available to "front-line" afloat recreation personnel who are being asked by commanding officers and command master chiefs for guidance on mixed gender recreation programming.
- Train recreation professionals in team building and group facilitation skills so they can enhance positive interpersonal outcomes; also offer diversity training focused on gender integration and organizational change.
- Encourage commands to conduct assessments of the fitness and

recreation needs of all active duty members, including those who are not currently using MWR facilities/services.

- Develop inclusive programs for both women and men with particular emphasis on fitness, team sports, and outdoor recreation.
- Tailor the marketing of recreation programs to appeal to both men and women.
- Build in evaluation measures and tools to assess the impact of Navy MWR recreation programs on critical outcome variables, such as perceptions of unit cohesion and effectiveness, satisfaction with the Navy, and reenlistment intentions.
- Continue to support Navy MWR's efforts to collect and publicize innovative programming ideas; request that practitioners share ideas for facilitating team building and positive gender relations with each other.

Table of Contents

List of Tables

List of Figures

Chapter 1

Introduction

by Amy L. Culbertson, Patricia J. Thomas, and John P. Harden, CLP

Recent changes in Navy policies now allow active duty women to serve in almost all types of units, including commands with a combat mission. To implement the policy, logistical challenges had to be addressed in afloat vessels to accommodate a mixed gender crew. Yet, a much larger challenge is at hand in dealing with work force attitudes towards these policies. The task of integrating women throughout a largely male work force that holds mixed perceptions regarding the desirability of gender integration throughout the Navy is formidable.

In 1993, the Secretary of the Navy released a message stating "full utilization of the talents of all our people is not a gender issue. It is a readiness issue...our core values of honor, commitment and courage demand that every military and civilian member be recognized as a valued member of the Navy-Marine Corps team" (Secretary of the Navy, 1993).

With this statement, the Secretary of the Navy indirectly challenged the Navy's Morale, Welfare, and Recreation (MWR) program managers to explore how recreation activities could assist Navy leaders in building effective gender-integrated teams. No research exists on how Navy recreation programs can be used to break down barriers between women and men within a military unit. Similarly, little is known about whether current MWR facilities erect barriers that hamper the integration of women into Navy commands.

This project begins to explore how Navy fitness and recreation activities could be used to encourage positive individual and organizational outcomes. The challenge is to determine how MWR can contribute to the goal of gender integration in the Navy. If MWR professionals can play a role in accomplishing this goal, then they demonstrate their ability to impact critical organizational variables, such as unit cohesion and readiness.

Objectives

Specifically, this report will address the following objectives:

- Review leisure and recreation research and practices as they apply to gender integration.
- Review relevant findings from sports psychology research.
- Summarize gender differences in the use of Navy fitness and other recreation facilities/services.
- Test hypothesized relationships between fitness use, satisfaction with Navy MWR, and intent to remain in the Navy.
- Provide an analysis of the fitness activities of men and women on the first mixed-gender aircraft carrier.
- Gather examples and advice from MWR professionals regarding designing and implementing recreation activities to facilitate organizational outcomes.
- Provide a framework and process for implementing innovative programming that influences interpersonal relations.
- Summarize the process of programming for gender integration.

Background on Women in the Navy

The opening of most jobs to active duty women was an event many thought would never happen. Although women have been permanent members of the Navy since 1948, their assignment to combatant and combat support ships is a dramatic change from the past. The following historical review lays the groundwork for understanding the complexities of integrating women into predominantly male organizational units.

In March of 1917, the first women were sworn into the Navy as Yeoman (F), popularly called Yeomanettes. They worked as clerks, telephone operators, translators, camouflage designers, and fingerprint experts. Some served in places as diverse as France, Puerto Rico, and the Panama Canal Zone. Approximately 13,000 young women saw duty with the Navy or Marine Corps before the rating was discontinued in 1919.

Despite the exigencies of World War II, women were not admitted to the Navy again until July 1942. The delay was caused by wording in the 1925 Naval Reserve Act that substituted "male citizens" for the previously authorized enlistment of "citizens." During the war years, Women Accepted for Voluntary Emergency Service (WAVES) were employed in almost every type of stateside shore billet, but were not permitted to serve outside the United States until September 1944. When peace came, their numbers had grown to 8,000 officers, 78,000 enlisted women, and about 8,000 trainees (Hancock, 1972).

After the war, most military women returned to civilian life, although a small cadre stayed in each of the services to handle the extensive clerical work associated with demobilization. In 1948, the Women's Armed Services Integration Act was passed, authorizing a permanent role for women in the armed forces. This legislation also established a policy of differential treatment of women and men, restricting women's representation to 2 percent of the force, denying benefits to their dependents, and setting a ceiling on the highest grade they could achieve.

The role of women in the Navy continues to change and be a subject of debate.

These inequities were not completely abolished until 1975. However, the type of duty women could perform still was restricted by Section 6015, Title 10 U.S.C. Basically this legislation prohibited the assignment of women to Navy ships. In 1976, following a suit by six Navy women, the law was amended to permit assignment of women to non-combatant vessels.

In November 1993, Section 6015 was repealed, opening all ships to women. Navy regulation, however, still prohibits their serving in submarines. As of January 1997, there were 50,823 women in the Navy. While not the largest number of women in the Navy uniform at one time, this figure represents 12.4 percent of the force--the highest proportion in history.

The process of integrating women into the Navy's active duty force over the past three decades has been one of both calm and stormy seas. The many individual and organizational challenges faced are summarized in review articles by Rosenfeld, Thomas, Edwards, Thomas, & Thomas (1991), and Edwards, Rosenfeld, Thomas, Thomas, & Newell (1994).

Despite the policy changes, perceptions regarding the integration of women into Navy commands with a combat mission are not all positive. "Praise and criticism of women's performance and behavior

during Operation Desert Storm, the furor caused by the Tailhook incident, and the deliberations of the Presidential Commission on the Assignment of Women in the Armed Services all indicate that the presence of women in the military is still a sensitive topic" (Edwards et al., 1994, p. 527). Commanding officers are faced with a challenging task of making gender integration happen in the Navy today regardless of personal attitudes and opinions.

Background on Navy MWR

The mission of Navy MWR is to design and deliver recreation and leisure programs responsive to the needs of all active duty members (Harden, 1994; Tobin, 1993). Historically, MWR programs existed in the military services to facilitate a positive quality of life for active duty members and their families. More recently, recreation services have been required to play a mission support role in the functioning of our military services.

MWR programs are an essential part of the mission support formula.

The MWR Division is in the Bureau of Naval Personnel (PERS-65), the branch of the Navy that overseas personnel-related programs. This division is the principal headquarters advocate for MWR programs throughout the Navy in over one hundred locations worldwide. The headquarters office also has a training group that conducts formal training courses on MWR-related topics for active duty managers and MWR professionals.

In 1996, there were approximately 835 Navy organizations involved in MWR program development and delivery world wide; 255 were aboard surface ships and 105 were aboard submarines (Harden, 1996). MWR sites may offer over 75 different fitness and recreation activities (Culbertson & Olmsted, 1996). Navy MWR also operates approximately 250 club facilities where social recreation programs are provided expressly for Department of Defense (DoD) active duty personnel, their family members, and civilian employees.

To enable the delivery of all these programs, the Navy employs approximately 20,300 full and part-time civil service, non-appropriated fund (NAF) and active duty employees. Within the MWR work force are both professionally and experientially trained personnel. Personnel working in the MWR field may hold a variety of different job titles, including program managers, recreation specialists, recreation aides, hospitality specialists, and marketing specialists.

Historically, MWR fitness and recreation programs were designed for male active duty members and their families. As the composition of the military force has changed, so too has the way MWR programs are designed and delivered. In addition, a number of laws are especially germane to the modification of recreation programs to accommodate women.

As the composition of the military force has changed, so to has MWR.

Title 9 of the U.S. Code, the Educational Equity Act, passed by Congress in 1972, gave women the right to equality in university academic and sports programs. This law influenced recreational sports programs in the Navy as interest in women's teams and athletics soared. Additionally, the assignment of women to noncombatant ships in 1977, when Section 6015 of U. S. C. Title 10 was amended, led to the development of mixed gender MWR programs for ships.

Probably the largest challenge in providing recreation facilities and services occurs at sea. At any time, one-third of the Navy's ships are deployed, one-third are conducting exercises for deployment, and one-third are preparing to deploy (Stevens, 1995). Ships vary in size from small coastal patrol boats with 39 crew members to aircraft carriers that can house close to 6,000 members. When deployed, each unit must be self-contained in terms of their MWR facilities and services.

Experience has shown that active duty members' quality of life can be seriously affected by the amount of time they spend deployed. To address this situation, Navy MWR Fleet Recreation Coordinators at locations world-wide assist afloat commands with planning recreational activities for the ship's crew (Stevens, 1995). Adapting recreational activities to the confines of a ship requires creativity. MWR professionals are well aware of the importance of positive recreational experiences in the often stressful life of shipboard personnel.

Purpose

This project will explore how recreation could be used by Department of the Navy (DON) leaders in ashore and afloat commands to encourage positive individual and organizational outcomes. This reports summarizes a variety of quantitative and qualitative data gathered to address the project objectives. Recommendations suggest how MWR could provide Navy leaders with tools and methods that seemingly contribute to bottom-line outcomes such as unit cohesion, retention of active duty personnel, and the integration of women throughout the Navy's active duty force.

References

Culbertson, A. L., & Olmsted, M. (1996). *Leisure needs assessment FY95 Navy-wide report.* San Diego, CA: Navy Personnel Research and Development Center.

Edwards, J. E., Rosenfeld, P., Thomas, M. D., Thomas, P. J., & Newell, C. E. (1994). Diversity research in the United States Navy: An update. *International Journal of Intercultural Relations, 18*(4), 521-538.

Hancock, J. B. (1972). *Lady in the Navy, a personal reminiscence.* Annapolis, MD: Naval Institute Press.

Harden, J. P. (1993). Social networks, recreation, and the Navy unit. *Naval Institute Proceedings, 119*, 54-58.

Harden, J. P. (1994). In support of Navy's mission: Recreation services play important role. *Military Clubs and Recreation*, 27-29.

Harden, J. P. (1996, December). MWR's mission support function: Raison d'etre. *Parks and Recreation.*

Rosenfeld, P., Thomas, M. D., Edwards, J. E., Thomas, P. J., & Thomas, E. D. (1991). Navy research into race, ethnicity, and gender issues. *International Journal of Intercultural Relations, 15*, 407-426.

Secretary of the Navy. (1993). ALNAV MESSAGE of October 93, Subj: *Optimal integration of women in the Department of the Navy.* Washington, DC: Department of the Navy.

Stevens, D. (1995). *Recreation during military deployments.* Presentation at the National Recreation and Parks Association Annual Congress, San Antonio, TX.

Tobin, P. E. Jr. (1993). Statement of Rear Admiral Paul E. Tobin, Jr. Assistant Chief of Naval Personnel for Personnel Readiness and Community Support. *Military Clubs and Recreation*, 23-27.

Chapter 2

Findings from Recreation, Sports Psychology, and Military Diversity Manangement Research

by Amy L. Culbertson, Patricia J. Thomas and Murrey G. Olmsted[1]

This chapter draws findings from leisure, recreation, and sports psychology research and applies this knowledge to team building, team cohesion, and integration among Navy personnel. Research on the military's past experiences with integrating diverse people, most notably those from different racial/ethnic groups, also lends lessons learned for facilitating gender integration today.

Recreation as an amenity in the military has been available formally since World War II. The purpose of recreation is more than just diversion. Bumgardner and Sharpless (1984) offered several rationales for the military to support recreational programs:

- To maintain a high level of esprit de corps, enhance job proficiency, contribute to military effectiveness, aid in recruitment and retention by making military service an attractive career, and aid in the transition from civilian to military life.

- To promote and maintain the physical, mental, and social well-being of military members, their families, and other eligible members of the military community.

- To encourage constructive use of off-duty leisure time with opportunities for acquiring new talents and skills that contribute to the military and civilian community.

- To provide community support programs and activities for military families.

[1]**Note:** The recreation research and marketing sections in this chapter were edited from a report prepared by Karla A. Henderson, Ph.D., University of North Carolina Chapel Hill, under contract number DAAL03-C-0034, TCN 86-003 for the Navy Personnel Research and Development Center.

In a more recent interpretation of the purpose of military recreation, Kinsman (1991) described how recreation addresses the mission of national defense. In addition to the other purposes stated above, military recreation contributes to the readiness of the armed forces by enhancing physical fitness, leadership, military skills, unit cohesiveness, and high morale.

Recreation is important for numerous personal, physical, mental, and social outcomes, particularly for personnel assigned to isolated bases in foreign countries or aboard ships. But in the final analysis, recreation activities are a means to further enhance aspects of military effectiveness.

Military recreation programs designed to promote gender integration may result in social cohesion that will carry over into the work environment. Before structuring such programs, gender differences in the use of leisure and recreation programs need to be examined. Data assessing women's recreational experiences in military settings also need to be reviewed to provide a framework for the development of pilot interventions.

Gender Differences in Recreation

Although some stereotypes are breaking down, perceptions still exist of appropriate "female sports" and "male sports." Male participants greatly outnumber female participants at all levels of competition in some sports, such as football, hockey, wrestling, boxing, fishing, and hunting. Physical activities in which females predominate include dancing, gymnastics, synchronized swimming, figure skating, cheerleading, and aerobics. Both men and women participate in many sports, but gender differences in terms of number of participants, number of highly competitive or professional athletes, and within sports that involve physical contact are usually evident.

Researchers have also noted the outdoor recreation behavior differences of men and women. As with other studies of gender differences in participation rates, results are inconclusive with some studies showing men participate more (e.g., Kelly, 1987; Zuzanek, 1978), and other studies showing no difference between the sexes (Eastwood & Carter, 1981). Women may perceive and react to outdoor experiences differently than men do (Schaef, 1981). In the outdoors, women's

concern for relationships with others and with nature often is emphasized (Henderson & Bialeschki, 1986). Cultural background may also affect the value systems associated with the outdoors and the participation patterns of women (Roberts, 1995).

While examining findings related to gender differences in recreation, be aware that more differences may exist within gender (women vs. women, men vs. men) than between the genders (Jackson & Henderson, 1995). Some studies of the general population have found few differences in recreation participation between men and women (e.g., Kelly, 1983; Zuzanek, 1978), while other studies conclude that distinct gender differences exist. The data on sports and cultural activities provide an overall picture of female and male participation, but they also hide complex differences that exist between individuals of different ages, ethnic backgrounds, or socioeconomic levels.

When studying the exercise behavior of Navy active duty personnel, Nice & Kilbourne (1988) found that age, sex, and ethnicity were associated with differences in exercise participation. In regards to gender, they found that men were more likely to play basketball and run, while women were more likely to participate in aerobics. In another study of over 3,000 active duty members, being in a shipboard versus shore-based assignment was not a significant determinant of exercise intensity (Nice & Conway, 1988). Instead, a positive attitude toward being fit was the most salient determinant.

Explaining Gender Differences: The Constraints Model

The debate over why men and women have some unique recreation habits has resulted in the development of various models. One type of model, namely the constraints model, has been used to explain gender differences in recreation. It primary focuses on constraints that prevent people from engaging in recreation activity. Crawford, Jackson and Godbey (1991) describe one such model that includes three categories of constraints: structural constraints, intrapersonal constraints, and interpersonal constraints.

Structural Constraints

Most empirical research on recreation/leisure constraints has focused on structural constraints, or constraints that intervene between the desire to participate and actual participation. The main structural constraints identified by researchers have been lack of time, money, and facilities or programs (e.g., Searle & Jackson, 1985; Jackson, 1988a; Jackson, 1988b). These factors probably represent the majority of structural constraints facing both men and women. Some differences in the way women tend to experience these constraints relative to men's experiences, however, may exist.

Lack of time, money, and facilities or programs are the most common constraints to recreation.

Unlike most men whose time constraints revolve primarily around their paid work obligations, women's lack of leisure results from the combination of their paid and unpaid work responsibilities. Lack of time is the greatest leisure constraint for both men and women (Searle & Jackson, 1985; Shaw, Bonen & McCabe, 1991), but time problems may be particularly high for women who work full time because of their "double day" or "second shift" experience (e.g., Hochschild & Machung, 1989; Schor, 1991).

Lack of economic resources is a constraint that also affects both sexes (e.g., Searle & Jackson, 1985). However, it's effect generally is felt more by women, primarily due to the fact that women have a lower average income as compared to men. Economic resources may be less of a problem for women in the military but they should not be discounted. Economic constraints may act as barriers to participation in activities because of lack of resources to pay for activities, transportation to and from recreation facilities, or child-care. Thus, insufficient money can have wide ranging negative effects on women's leisure.

Lack of opportunities, facilities, and programs for recreation also constrain women's leisure. Traditionally viewed "male activities" (e.g., ice hockey, rugby, or wrestling) often are not available for women. This problem is perpetuated when women do not express an interest or need for particular programs.

Another structural constraint that has received little attention is safety. Women are affected by fear of violence in all aspects of their everyday lives, including recreation and leisure (Whyte & Shaw, 1994). Fear of violence affects where women participate (i.e., they may avoid certain

areas where they feel unsafe), when they participate (i.e., avoiding after-dark activities), and with whom they participate (i.e., not participating alone).

Even if fear of violence does not prevent or decrease participation in desired recreation activities, it often negatively affects the quality of such experiences. Being constantly on the alert or having to choose the time and place carefully interferes with enjoyment. Fear of violence may be a particularly strong constraint on women who have to recreate alone.

Intrapersonal Constraints

Intrapersonal constraints, which are similar to antecedent constraints discussed by Henderson, Stalnaker, and Taylor (1988), refer to factors that affect preference or lead to a lack of interest in a particular recreational activity. Family influences, the attitudes of friends, or one's own lack of self-confidence can affect individuals' preferences. People may express lack of interest in activities disapproved of by others, whereas if they had been encouraged to participate they might have enjoyed the activities.

Self-consciousness, social discomfort, and concern about body image are related to low self-esteem, which also has been viewed as a constraint. While researches have not investigated whether low self-esteem prevents interest in activities, evidence suggests that it is associated with lower levels of participation and high perceived constraints (Dattilo, Dattilo, Samdahl, & Kleiber, 1994).

A lack of skills can also constrain recreational participation.

Studies have found that lack of skills can also constrain recreational participation and expressed interest in leisure activities (Jackson & Rucks, 1995). Since perceived rather than the absolute lack of skills appears to constrain recreation/leisure, low self-efficacy and/or self-esteem may be antecedent causes of the constraints. The difficulty in dealing with low self-esteem and low skill level as constraints on leisure is that a circular problem is created. Both esteem and skill levels typically are boosted through participation, but encouraging participation in the first place is difficult if these factors act to deter or squash interest.

A different, though related, set of intrapersonal constraints on women are those constraints associated with female gender roles. If narrowly defined beliefs about how women should behave are internalized (e.g. women should be gentle, caring, non-aggressive, non-competitive and passive), recreation activities that do not support this image will not be undertaken. Such constraints may affect the person either consciously or unconsciously (Henderson & Bialeschki, 1993, Henderson, Bialeschki, Shaw, & Feysinger, 1996).

Interpersonal Constraints

Interpersonal constraints, according to Crawford, Jackson, & Godbey (1991), are intervening variables associated with relationships with other people. Women's ethic of care is an interpersonal constraint as well as an intrapersonal (personal) constraint. For instance, caring for others functions as an interpersonal constraint when women are aware of their recreation preferences, but they put the needs of friends or family members before their own leisure needs.

Social Outcomes of Recreation

Recreation professionals believe that positive outcomes result from recreation programs. Measuring these benefits, however, has not always been easy. The recreation/leisure research literature, which has only become available in the past 30 years, is now beginning to provide answers regarding possible outcomes of recreation. Recreational activities often occur in social situations, and one of the most important reasons that people participate is to be with others and make new friends. Thus, social outcomes are currently being explored as one of the most important benefits of recreation/leisure experiences.

Social outcomes are currently being explored as one of the most important benefits of recreation/leisure experiences.

Driver, Brown, and Peterson (1991) discuss sociological measures of the benefits from recreation, including social cohesion, organizational wellness, and satisfaction with the community. Social cohesion involves coming together as a team, and setting aside differences to reach mutual goals. Social cohesion, according to Burch and Hamilton-Smith (1991), includes social bonding, solidarity, and integration. Social integration develops linkages among social units, and includes shared values regarding roles and goals.

In most organizations, people must work together to accomplish defined goals. Thus, social cohesion and social integration are

outcomes that make good business sense and are thought to lead to enhanced effectiveness in the workplace. Organizations have for decades been concerned with integrating groups of "nontraditional" workers, such as racial/ethnic minorities and women, into workforces that historically were dominated by white men.

Efforts to integrate nontraditional workers need to address both structural (external) and attitudinal (internal) aspects of the integration process. Typically, the first step in integration is structural inclusion. The more difficult second step is changing the attitudes that people have about the new group(s) of workers who appear different from them. Determining the effectiveness of integration efforts requires measurement of both structural integration and attitudinal change.

To achieve integration, all individuals should have the opportunity to perform successfully as members of the group. They should feel they are working together to attain group, as well as individual, goals. Recreation programs can help diverse people (e.g., due to race, gender, education) form a group with close social bonds. They can also have negative effects by perpetuating individualism, and emphasizing differences if not implemented in a manner to create social cohesion and social bonding.

Sports Psychology Research

Sports Psychologists have also pursued research avenues linking fitness and sports competition to a number of individual and group outcomes, such as social cohesion and bonding (Brawley, Carron, & Widmeyer, 1987; Burch & Hamilton-Smith, 1991; Carron, 1988; Carron & Spink, 1993; Driver, Brown, & Peterson, 1991; Falkenberg, 1987; William & Widmeyer, 1991). Their unique contribution comes from their focus on the various psychological constructs of interest to the profession, such as team building, team cohesion, goal setting, and the cognitive processes influencing the interpretation of experiences. This body of research has shown that participation in sports teams and fitness activities can have positive group outcomes.

Findings from Research with Athletic Teams

Cohesion within athletic teams has been linked with a number of positive outcomes, such as superior group performance, better communications between team members, group stability, and enhanced

task and social interactions. Individual outcomes that have been tied to team cohesion include increased self esteem and trust, willingness to share responsibilities for group outcomes, and willingness to change (cf. Carron, 1988).

Part of the difficulty in showing bottom-line effects from sports is the lack of standardized methods of measuring complex outcomes, such as team cohesion and effectiveness. One reliable instrument to assess the cohesiveness of sports teams is the Group Environment Questionnaire (GEQ) (Brawley, Carron, & Widmeyer, 1987; Carron & Spink, 1992; Carron, Widmeyer, & Brawley, 1985). This 18-item instrument is based on a conceptual model in which cohesion is a multidimensional construct of individual and group aspects, each of which has a task and social orientation. The constructs of group environment (i.e., distinctiveness) and group structure (i.e., group norms and group positions), impact on group processes (interaction, communication, sacrifices), and group cohesion (individual attraction to the group task, individual attraction to the group-social, group integration-task, and group integration-social). Use of this instrument will surely advance our understanding of how to impact positive team outcomes.

Group Effects from Fitness Classes

Research by Sports Psychologists has not focused solely on athletic sports teams, but also looked at a range of exercise and fitness settings and behaviors. Carron and Spink (1992), for example, found that although exercising at fitness centers is an individually focused activity, strong group effects occur among the individuals working out together.

Business, sports, and the Navy are similar in that groups must work together to carry out and achieve their goals.

Tajfel and Turner (1979) reported that "fitness class participants—because of their need for social bonding and social identity—probably come to view their classes in terms of 'we,' develop an evaluative bias about those classes, display out-group rejection, and perceive that the group possesses some degree of cohesiveness" (p. 9). According to Tajfel and Turner (1979), people are strongly motivated to develop social bonds and social identities from their association with others, even if on a nominal basis.

Thus, individuals working out in a similar fitness class environment can lead to positive interpersonal and group perceptions. And can interventions be initiated that may enhance these positive perceptions?

Fitness and Team Building

After demonstrating the link between exercise/fitness activities and cohesion among a group of people, Carron and Spink (1993) explored whether team cohesion could be enhanced in a fitness class through a psychological intervention. A team-building intervention was delivered over a 13-week period to fitness class participants in the experimental condition. The intervention was geared to:

- Increase positional stability of fitness class participants
- Facilitate the development of group expectations and norms
- Increase perceptions of distinctiveness among class members
- Encourage personal sacrifice by class members
- Increase the interaction and communication among class members

Cohesiveness was measured using the GEQ. Discriminant analyses found that cohesiveness was higher among members of the experimental condition who had received the team-building intervention. The team-building intervention also significantly enhanced individuals' satisfaction with the fitness class (Carron & Spink, 1993). Lastly, the team-building intervention had a positive affect on individuals' adherence to an exercise class. Thus, these authors demonstrated that a psychological intervention emphasizing team building strategies could influence perceptions of cohesiveness of fitness class members.

Linking Group Cohesion and Performance

A psychological intervention did influence perceptions of cohesiveness.

Lately, the attention of sports psychologists has been drawn to demonstrating the links between team cohesion, team building, and team performance. Team building interventions in exercise settings could have several positive organizational outcomes, including teams that are more cohesive, perform better, and are more physically fit than those with no intervention. Williams and Widmeyer (1991) have shown that team cohesion has a positive impact on team performance. Research in this arena will continue to demonstrate the connections between team cohesion and team performance.

Research has also shown that group cohesion and influence in setting group goals are the most reliable predictors of group goal satisfaction (Brawley, Carron, & Widmeyer, 1993). These findings emphasize that the process of participation is important and strongly related to perceptions of "groupness" among the members of a sports team.

Military Diversity Management Research

The military services have a long history of integrating people from diverse backgrounds. Most notable to date has been the services integration of members of all racial/ethnic groups, from African-Americans, to Hispanics, Asian-Americans, Native Americans, and Whites. Gender integration is the services new challenge. A review of research and past integration experiences suggests three dimensions that are key to both structural and attitudinal integration of women into military units are: exposure, education, and enforcement (Morrison, 1992). The element of exposure offers the most potential for leaders to consider when using recreation to facilitate positive military unit outcomes.

Exposure

Exposure may be one of the best ways to use recreation to enhance gender integration in the military.

Durning (1978) described how exposure to women as peers tended to break stereotypes and traditionalism among the male students at the Naval Academy. She noted that the interpersonal exposure must be a positive social experience. Hope's work on racial integration (1979) found that belief similarities may be more important than race similarities when it comes to establishing friendships. Thus, people from different races would get along better if they were exposed to others of different races who shared similar beliefs.

Further, race similarity became less of a factor when (1) instruction occurred in small groups; (2) there was a maximum of heterogeneity of individual characteristics (e.g., age, race, income, ethnicity) in each group; and (3) the instructor or facilitator encouraged close personal rapport among group members. Although the dynamic studied was racial integration, Hope's findings apply to gender integration by emphasizing similar goals and skills, and not concentrating on differences between men and women.

Segal (1982) studied race and gender integration in the Army. She concluded that the bonds that tie soldiers to their groups often derive

from respect for other group members based on performance that contributes to the goals of the group. Such mutual interdependence can occur on the job and through non-work activities for mixed-gender groups. Thus, managed exposure can shape behaviors and create an environment for enhancing gender integration.

Education

Royle (1987) noted that social psychological theory suggests that discrimination against women is likely in situations where information is minimal, thereby allowing people's stereotypes to operate unchecked. Herek (1993) suggested that education must result in an awareness of psychological processes that perpetuate stereotyping and prejudice, or else it will not be effective in changing attitudes.

Thomas and Greebler (1983) found that Navy men who anticipated adverse consequences when women entered their domains were likely to have the biggest problems with women. Dispelling myths and stereotypes through training and education may change some of the self-fulfilling behaviors that can occur. Education alone is not the panacea for bringing about behavioral change that some people believe it to be. Education can raise awareness--a necessary prerequisite for behavior and attitudinal change (Hope, 1979).

One problem with training is that people frequently have little opportunity to practice their learning outside the training situation. Hope (1979) concluded that race relations seminars did increase the information people had, but did not necessarily change behaviors. Behaviors were more likely to change in an atmosphere that supported equal opportunity. Some evidence suggested that emotional involvement in discussing new information influenced attitudes. Education, to be useful, however, required discussion and interaction among groups. In addition, education without exposure and enforcement of goals made little difference.

Enforcement

Research has shown that the integration of women may be enhanced by rewarding behavioral change (Morrison, 1992). Supervisors and leaders must provide an environment that will allow integration to flourish. Thus, desired behavior must be rewarded, and undesirable behavior extinguished, if change is to occur in an organization.

For example, recreation leaders who develop programs that address the needs of women and attempt to provide an atmosphere that will lead to gender integration should be rewarded for their efforts. Rewards encourage the development of additional programs and emphasize the importance of outcomes desired from recreation. Similarly, recreation programs that are sexist or degrade women in any way should be discontinued.

Marketing Recreation Programs

Marketing has caught the attention of recreation/leisure providers in the past 20 years. It includes activities aimed at developing recreation programs and services, and pricing, promoting, and distributing those services programs effectively (National Park Service, n.d.; Henderson, 1995). Although marketing is often considered a commercial concept, the premises of marketing have much to offer recreation leaders who are interested in the maximum involvement of participants. Marketing techniques, such as preparing descriptive program brochures, cordial reception, hospitality, maintaining safe facilities, and projecting a good image, frequently have been used in recreational settings.

Recreation researchers have only recently begun to systematize the concept of marketing (O'Sullivan, 1991). Marketing begins and ends with participants (Henderson, 1995). The principles of marketing are the same for women as for men, but the application may be different if leaders are to successfully attract females to recreational programs. Product, price, and promotion must all be considered. An overall of the research in this area, noting gender differences, also adds to the foundation for establishing effective recreation programs for gender integration in our active duty force.

Recreation researches have only recently begun to systematize the concept of marketing.

Product

The product or outcome of recreational experiences must be clearly articulated. Product refers to the services, programs, facilities, or items offered by an organization to the target market. The product includes not only the activity, but also the environment in which it occurs. The product also encompasses any physical, social, and emotional outcomes.

Describing the product to a potential market of women may need to focus on different components than when marketing the same product to men. Most women want to know that the activity will occur in a non-threatening environment. They may also be concerned with

whether the traditional "male model" of sports apply to the program or activity offered. Some women will want to participate in competitive activities, but many women may not find these activities appealing to them. Women often look for social experiences along with improving their physical fitness. As is true for all recreation pursuits, enjoyment is a very important factor. Enjoyment may result from opportunities that provide self-expression, aesthetic performance, and social interaction.

Although rarely articulated, some women may be seeking self-identity and empowerment through their recreational activities. Mitten (1995) suggested that for women to feel empowered, several things must be emphasized: a program philosophy that respects women and adds to self-esteem, leaders skilled in implementing the program philosophy, and participants who have choices about and within the experience. She further suggested that women are looking for unconditional support, attention, and acceptance for who they are as people. These are all important factors that need to be described and illustrated in the marketing plan.

The skill level required or to be taught must also be considered when describing the product being marketed. Women may be reluctant to participate in physical activities because they lack the skills needed and do not want to hold back others. They also may not want to face their own lack of physical ability. Beginner level training may be needed so women can gain skills and feel confident about their abilities.

Place

Place refers to the way that programs are established or distributed, involving the what, where, when, and who aspects of involvement. Distribution ought to assure equity in the opportunities provided. Equity does not mean that women have the same programs as men, but that women have an opportunity to make their needs known and have appropriate inclusive programming to address the outcomes they need and desire.

A variety of structures and scheduling formats need to be considered. As described earlier, no one structure fits all individuals. Timing and location are also important. Often the best ways to find out about scheduling is to ask customers what they prefer. If women are to feel

welcomed in recreational programs, they must not be given the "left over" space or times at the gym or community center (Straw, 1994). Further, availability of childcare on site is an important consideration for some women.

Place also relates to concern for health and safety. Having well maintained facilities, particularly clean rest rooms and locker rooms, is important. In addition, poorly lit parking lots can affect participation. Women want to be assured of site supervision and adequate facilities so they feel safe.

Price

Pricing is an important marketing issue that may not be as significant in the Navy as in civilian settings, but ought to be considered. Despite the career gains made by females in the last 30 years, women still have less discretionary income than men. Further, women who are the sole providers of their families have even fewer resources. Keeping registration and admission fees low is not always possible, but the buying power of women ought to be kept in mind.

Both ability and willingness to pay are issues to consider. People are more likely to buy something if they feel it is worth the money. Thus, price and perceived quality are interrelated. A challenge to recreation leaders is to provide activities that appeal to women as something they could not necessarily be able to do on their own.

Promotion

The final aspect associated with marketing is promotion. Promotion generally includes a combination of publicity, advertising, personal contact, and special incentives. The actual promotional techniques used are no different for women than would be used with any group; however, the message may be different based on the product and place. Further, the message must be directed toward targeted groups.

Promotion will be ineffective, however, unless the other three parts of marketing have been carefully considered. No matter how good the promotion, if the product, place, and price do not appeal to women,

promotion will do little good. At the same time, promotion is an ongoing process that is tied to developing all aspects of the marketing plan. The initial purpose of promotion is to develop an awareness or image about possibilities. Participation will occur at a later time after an identity with the product has been established.

The best way to market to women is through personal contact.

Experience has shown that the best way to market to women who previously have not been active in a program is through personal contact (Minneapolis Parks and Recreation Board, 1993; Straw, 1994). This contact may occur in many ways including recreational providers working with participants and potential participants, staff or other satisfied customers selling the program, use of advisory committees, and conducting needs assessments. These activities can make women aware of activities and facilities, and solicit their participation.

The byproducts of promotion are image and identity (National Parks Service, n.d.). Image is the impression associated with recreational programs in the minds of those who are aware of the services; identity refers to the instantaneous association of recreation in the mind of potential participants by using products, logos, colors, and themes. If women are to be attracted to recreational programs, they must be able to identify with what recreation is trying to do. Because women often have been "left out" in the past, creating image and identity through promotion will be an essential component in encouraging women to participate in the future (Henderson, 1995).

Attracting women to recreational programs requires a concerted assessment, implementation, and evaluation process. Calling this process marketing is not new. A marketing approach can provide a framework for analyzing how women might be further involved in military recreation programs. The principles of marketing that should be applied are the same as for any group (Henderson, 1995); but these principles may need to be adapted to address the needs, interests, and motivations of active duty women, which are undoubtedly unique from their civilian counterparts.

Conclusions

Research from a variety of arenas suggests that using recreation to accomplish positive individual, organizational, and social outcomes is not at all a far-fetched idea. Findings from the recreation arena describe gender differences in fitness and recreation activities, and provide explanations for why those differences may occur. A message that emerges very clearly from this research is that recreation programmers must expand traditional models of fitness participation and recreation to consider variables that influence the behavior of both men and women.

Research being conducted by sports psychologists provides very promising indicators that exercise classes, team sports, and cognitive interventions can all play a part in shaping people's attitudes about themselves and others, and the commonalities between them. Findings have indicated that positive interpersonal relations, social bonding, and group cohesion can all be influenced by fitness activities. Research in this arena has also begun to document the relationship between cohesion and performance, and how to manipulate that relationship through interventions. The application of this research to military organizations is obvious, with the goal of fitness activities actually influencing the cohesion and effectiveness of mixed gender units.

Using recreation to accomplish positive individual, organizational, and social outcomes is not at all a far-fetched idea.

Research on the military's experiences with past diversity management scenarios, most notably racial/ethnic integration, provide many lessons learned on how to facilitate gender integration today. For instance, education without exposure will not be effective in changing people's attitudes about others. It is also clear that Navy leaders must ensure positive consequences for those who support gender integration, and similarly negative consequences from those who don't support it.

A recent focus of research on the marketing of recreation programs establishes marketing as a critical variable in encouraging both men and women to participate. Marketing approaches that may have been used in the past with a strictly all-male active duty force will not work as well in attracting both women and men to the recreational activity. This ties in with expanding our understanding of gender differences in fitness and recreation and understanding whey they exist. But it is clear that to effectively solicit the participation of both active duty men and women in Navy MWR programs and events, new marketing approaches that take into consideration product, place, price, and promotion are needed.

References

Brawley, L. R., Carron, A. V., & Widmeyer, W. N. (1987). Assessing the cohesion of teams: Validity of the group environment questionnaire. *Journal of Sports Psychology, 9*, 275-294.

Brawley, L. R., Carron, A. V., & Widmeyer, W. N. (1993). The influence of the group and its cohesiveness on perceptions of group goal-related variables. *Journal of Sport and Exercise Psychology, 15*, 245-260.

Bumgardner, W., & Sharpless, D. (1984, July). Educating the military recreator. *Parks & Recreation*, 43-45, 61.

Burch, Jr., W. R., & Hamilton-Smith, E. (1991). Mapping a new frontier: Identifying, measuring, and valuing social cohesion benefits related to non-work opportunities and activities. In Driver et al. (Eds.), *Benefits of leisure* (pp. 369-383). State College, PA: Venture Publishing, Inc.

Carron, A. V. (1988). *Group dynamics in sports*. London, ON: Sports Dynamics.

Carron, A. V. & Spink, K. S. (1992). Internal consistency of the group environment questionnaire modified for an exercise setting. *Perceptual and Motor Skills, 74*, 304-306.

Carron, A. V. & Spink, K. S. (1993). Team building in an exercise setting. *The Sport Psychologist, 7*(1), 8-18.

Carron, A. V., Widmeyer, W. N., & Brawley, L. R. (1985). The development of an instrument to assess cohesion in sport teams: The Group Environment Questionnaire. *Journal of Sport Psychology, 7*, 244-266.

Crawford, D., Jackson, E., & Godbey, G. (1991). A hierarchical model of leisure constraints. *Leisure Sciences, 9*, 119-127.

Dattilo, J., Dattilo, A. M., Samdahl, D. M., & Kleiber, D. A. (1994). Leisure orientations and self-esteem in women with low incomes who are overweight. *Journal of Leisure Research, 26*, 23-38.

Driver, B. L., Brown, P. J., & Peterson, G. L. (1991). *Benefits of leisure*. State College, PA: Venture Publishing, Inc.

Durning, K. P. (1978). Women at the Naval Academy: An attitude survey. *Armed Forces and Society, 4* (4), 569-588.

Eastwood, D., & Carter, R. (1981). The Irish dune consumer. *Journal of Leisure Research, 13*(4), 273-281.

Falkenberg, L. E. (1987). Employee fitness programs: Their impact on the employee and the organization. *Academy of Management Review, 12*(3), 511-522.

Henderson, K. A. (1995). Marketing recreation and physical activity programs to females. *Journal of Physical Education, Recreation, and Dance, 66*(8), 53-59.

Henderson, K. A., & Bialeschki, M. D. (1986). Outdoor experiential education (for women only). In M. Gass & L. Buell (Eds.), *Proceedings Journal* (pp. 35-41). Moodus, CT: Association of Experiential Education 14th Annual Conference.

Henderson, K. A., & Bialeschki, M. D. (1993). Fear as a constraint to active lifestyles for females. *Journal of Physical Education, Recreation, and Dance, 64*(2), 24-27.

Henderson, K. A., Bialeschki, M. D., Shaw, S. M., & Freysinger, V. J. (1996). *Both gains and gaps: Feminist perspectives on women's leisure*. State College, PA: Venture Publishing, Inc.

Henderson, K. A., Stalnaker, D., & Taylor, G. (1988). The relationship between barriers to recreation and gender-role personality traits for women. *Journal of Leisure Research, 20*(1), 69-80.

Herek, G. M (1993). Sexual orientation and military service. *American Psychologist, 48*(5), 538-549.

Hochschild, A., & Machung, A. (1989). *The second shift*. New York: Viking.

Hope, R. O. (1979). *Racial strife in the U.S. military*. New York: Praeger.

Jackson, E. L. (1988a). Integrating ceasing participation with other aspects of leisure behavior. *Journal of Leisure Research, 20*(1), 31-45.

Jackson, E. L. (1988b). Leisure constraints: A survey of past research. *Leisure Sciences, 10*, 203-215.

Jackson, E. L., & Henderson, K. A. (1995). Gender-based analysis of leisure constraints. *Leisure Sciences, 17*, 31-51.

Jackson, E. L. & Rucks, V. C. (1995). Negotiation of constraints by junior-high and high-school students: An exploratory study. *Journal of Leisure Research, 27,* 85-105.

Kelly, J. R. (1983). *Leisure identities and interactions.* London: George Allen and Unwin.

Kelly, J. R. (1987). *Freedom to be: A new sociology of leisure.* New York: MacMillan Publishing Co.

Kinsman, F. R. (1991). Military recreation and mission accomplishment. *Parks & Recreation*, 42-45.

Minneapolis Park and Recreation Board (1993). *Girls' program* (Report 4/93). Minneapolis, MN: Park Board.

Mitten, D. (1995, May). *Women choosing to spend outdoor pursuit leisure time with other women -Why do some women choose all-women groups and some women avoid all-women groups?* Paper presented at the International Conference on Women and Leisure: Toward a New Understanding, Athens, Georgia.

Morrison, A. M. (1992). *The new leaders.* San Francisco: Jossey-Bass Publishers.

National Park Service. (n.d.) *Marketing parks and recreation.* State College, PA: Venture Publishing.

Nice, D. S., & Conway, T. L. (1988). *Exercise patterns in the U. S. Navy* (Report No. 88-1). San Diego, CA: Naval Health Research Center.

Nice, D. S., & Kilbourne, B. K. (1988). *Geographic and regional determinants of participation in specific exercise activities* (Report No. 88-19). San Diego, CA: Naval Health Research Center.

O'Sullivan, E. (1991). *Marketing for parks, recreation, and leisure.* State College, PA: Venture Publishing, Inc.

Roberts, N. (1995, May). *Women of color in outdoor recreation: The role of culture and ethnicity.* Paper presented at the International Conference on Women and Leisure: Toward a New Understanding, Athens, Georgia.

Royle, M. H. (1987). Using bifocals to overcome blindspots: The impact of women on the military and the ministry. *Review of Religious Research, 28*(4), 341-350.

Schaef, A. (1981). *Women's reality.* Minneapolis: Winston Press.

Schor, J. (1991). *The overworked American: The unexpected decline of leisure.* New York: Basic Books.

Searle, M. S., & Jackson, E. L. (1985). Socioeconomic variations in perceived barriers to recreation participation among would-be participants. *Leisure Sciences, 7*, 227-249.

Segal M. W. (1982). The argument for female combatants. In N. L. Goldman (Ed.), *Female soldiers--Combatants or noncombatants?* (pp. 267-290). Westport CT: Greenwood Press.

Shaw, S. M., Bonen, A., & McCabe, J. F. (1991). Do more constraints mean less leisure? Examining the relationship between constraints and participation. *Journal of Leisure Research, 23*(4), 286-300.

Straw, S. (1994). *Women in action (phase one-awareness final report).* Toronto: Parks and Recreation.

Tajfel, H. & Turner, J. (1979). An integrative theory of intergroup conflict. In W.G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33-47). Belmont, CA: Wadsworth.

Thomas, P. J. & Greebler, C. S. (1983). *Men and women in ships: Attitudes of crews after one to two years of integration.* San Diego, CA: Navy Personnel Research and Development Center.

Whyte, L. B. & Shaw, S. M. (1994). Women's leisure: An exploratory study of fear of violence as a leisure constraint. *Journal of Applied Recreation Research, 19*(1), 5-21.

Williams, J. M. & Widmeyer, W. N. (1991). The cohesion-performance outcome relationship in a coaching sport. *Journal of Sport & Exercise Psychology, 13*, 364-371.

Zuzanek, J., (1978). Social differences in leisure behavior: Measurement and interpretation. *Leisure Sciences, 1,* 271-293.

Chapter 3

Gender Differences in the Use of Navy MWR Recreation Facilities and Services

by Amy L. Culbertson and Murrey G. Olmsted

The Navy Leisure Needs Assessment (LNA) Survey gathered customer information to assist commanding officers and installation managers in deciding how to improve MWR facilities and services at their bases. Data collected by the survey were also analyzed at the Navy-wide level to provide Headquarters personnel with MWR use, quality, and customer satisfaction information (Culbertson, 1994; Culbertson & Olmsted, 1996). This project fulfilled the Department of Defense requirement to conduct triennial, installation specific needs assessments for MWR programs. Differences in men's and women's use and satisfaction with MWR recreational programs were explored as a foundation for understanding how recreation might facilitate gender integration in the Navy.

The Navy Leisure Needs Assessment (LNA) Survey

The Navy LNA Survey used during 1993-1995 was a modification of the Smart Compass Survey (Caliber Associates, 1985) originally developed in 1995 to assess active duty MWR needs. Feedback obtained from focus groups with MWR professionals in the field and at headquarters highlighted areas of improvement for the Smart Compass Survey. Changes were made to increase the validity of the data, to enhance the quality of information collected, and to gather data on outcomes that could be tied back to MWR programs.

The Navy LNA Survey was an omnibus survey assessing respondents' use of 86 activities in 15 MWR recreation and club program areas. The survey also gathered customer ratings on 16 quality characteristics for each program area, along with ratings of customer satisfaction. General leisure

needs information was also tapped by the survey. The Survey also asked respondents about general outcomes, such as their intentions to reenlist, so as to study the contribution of MWR to bottom-line events (i.e., retention).

The LNA Survey Sample

The data presented here were collected during fiscal year 1995 (FY95) at a total of 56 MWR sites world-wide. Random samples of enlisted and officer personnel were selected by geographic region for each of the 56 MWR sites. Sampling was designed to obtain results at the 95% confidence level, plus or minus 5%. Bases in areas with several Navy MWR sites (e.g., San Diego, Norfolk) were defined by zip code regions and sampled accordingly.

Quarterly data files from Navy-wide manpower databases were used to select the stratified random sample. Mailing labels were produced by matching the selected sample to Defense Financial Accounting Service address files. In addition to active duty personnel, random samples of civilians and retirees were selected for each MWR site, but they are not included in the analyses presented here.

The LNA Survey Administration

Survey packages were mailed directly to the randomly selected sample. The packages included a cover letter explaining the purpose of the survey, the LNA Survey itself (prepared in scannable format), and a postage-paid return envelope. Two follow-up postcards were mailed to remind participants to return the surveys. The survey field period lasted 12-16 weeks to allow time for delivery to afloat and overseas commands.

The response rate during FY95 was 40%, which is similar to rates obtained by other Navy mail-out surveys at the time. Completed surveys were scanned into computer files and analyzed using SPSSX. A summary of the survey data was generated for each MWR site, including computerized survey feedback (Culbertson, 1995).

The analyses presented here are based on 4 key analysis groups: enlisted men (N = 6,928), enlisted women (N = 2,135), officer men (N = 4,552), and officer women (N = 1,104). Post-stratification weighting was used as appropriate so that the survey respondent group represented overall Navy population statistics. The margin of error for each of these groups is +/- 1%.

Results and Discussion

Analyses conducted in 1995-1996 with the LNA Survey suggested that additional demographic variables need to be used when defining Navy active duty customer groups. For instance, for the first time differences in the use of Navy MWR by various racial/ethnic groups were studied. The findings were quite dramatic (Culbertson, Hill, & Thomas, 1995).

For instance, a significantly larger percentage ($p < .01$) of black enlisted personnel used weight training equipment, free weights, aerobic equipment, aerobics/weight training classes, and the basketball courts compared to white enlisted personnel. Fewer differences were found for officers, although blacks were more likely to participate in aerobic weight training classes than whites. For both enlisted and officer personnel, a significantly larger percentage of whites used the swimming pools compared to blacks. When comparing active duty members' ratings of quality and satisfaction, enlisted black males emerged as the most satisfied customer group.

To address the goals of this study, the results focus on the similarities and differences between male and female active duty Navy personnel. Analyses were conducted on ratings of program use, satisfaction, and quality, along with an assessment of leisure interests and priorities. Three Navy recreation program areas were studied: Sports and Fitness, Outdoor Recreation, and Recreation Centers. While these programs are not a comprehensive list of MWR recreation programs, they are among those most used and valued by male and female active duty Navy personnel.

As can be seen in Table 1, there are similarities and differences in men's and women's use of sports fitness facilities and services. These results indicate that men tend to be consumers of such things as weight training equipment, free weights, the playing fields, and athletic gear check out; women tend to use weight training equipment, aerobic equipment, free weights, aerobic/weight training classes, and the swimming pool.

Table 1. Use of Navy Sports and Fitness by Gender and Active Duty Status

	ENLISTED		OFFICER	
Facility/Service	**Male**	**Female**	**Male**	**Female**
Weight training equipment	78%	82%*	75%	70%*
Free weights	68%	59%*	60%	43%*
Playing fields	59%	32%*	59%	30%*
Athletic gear check out	55%	40%*	53%	37%*
Aerobic equipment	50%	71%*	38%	67%*
Swimming pool	44%	47%*	51%	53%
Intramural sports competition	44%	27%*	41%	24%*
Basketball courts	38%	35%	43%	16%*
Aerobic/weight training classes	27%	49%*	13%	42%*
Racquetball courts	26%	36%*	33%	16%*
Tennis courts	20%	16%	25%	17%*
Swim/Scuba classes	7%	8%	6%	9%*

Note: A significant difference in use by male and female active duty personnel (within enlisted/officer category) was found in those marked with "*". All differences statistically significant at the $p < .01$ level.

Table 2 shows that when looking at the rankings of activities without concern for frequency of use, the top five activities are similar across the groups. Yet aerobic/weight training classes appeal to the women but not to the men, and playing fields appeal to the men but not the women.

Table 2. Rank Ordering of Top Five Activities for Sports and Fitness

Male-Enlisted	Male-Officer
1. Weight training equipment	1. Weight training equipment
2. Free weights	2. Free weights
3. Playing fields	3. Playing fields
4. Athletic gear check out	4. Athletic gear check out
5. Aerobic equipment	5. Swimming pool
Female-Enlisted	**Female-Officer**
1. Weight training equipment	1. Weight training equipment
2. Aerobic equipment	2. Aerobic equipment
3. Free weights	3. Swimming pool
4. Aerobic/weight training classes	4. Free weights
5. Swimming pool	5. Aerobic/weight training classes

The results shown in Table 3 indicate that male active duty personnel tend to use Navy outdoor recreation programs somewhat more than females. Some differences between men and women were found in the outdoor recreation area, as indicated by the statistical tests.

Table 3. Use of Navy Outdoor Recreation by Gender and Active Duty Status

	ENLISTED		OFFICER	
Facility/Service	**Male**	**Female**	**Male**	**Female**
Picnic areas/parks	82%	83%	85%	84%
Water recreation (boating/beach)	44%	41%*	53%	49%
Outdoor equipment rental	43%	41%	39%	35%*
Fishing/hunting	32%	17%*	18%	10%*
Camp sites/cabins	20%	15%*	15%	14%
Outdoor trips/tours	12%	19%*	18%	20%
Winter/snow recreation	7%	6%	6%	4%
Outdoor skills classes	7%	5%	5%	6%

Note: A significant difference in use by male and female active duty personnel (within enlisted/officer category) was found in those marked with "*". All differences statistically significant at the $p < .01$ level.

Table 4 rank orders the most used facilities and services in the outdoor recreation area. While women tended to participate in outdoor trips/tours more so than men, men were more likely to do fishing/hunting activities.

Table 4. Rank Ordering of Top Five Activities for Outdoor Recreation

Male-Enlisted	Male-Officer
1. Picnic areas/parks	1. Picnic areas/parks
2. Water recreation	2. Water recreation
3. Outdoor equipment rental	3. Outdoor equipment rental
4. Fishing/hunting	4. Fishing/hunting
4. Camp sites/cabins	5. Outdoor trips/tours

Female-Enlisted	Female-Officer
1. Picnic areas/parks	1. Picnic areas/parks
2. Water recreation	2. Water recreation
3. Outdoor equipment rental	3. Outdoor equipment rental
4. Outdoor trips/tours	4. Outdoor trips/tours
5. Fishing/hunting	5. Camp sites/cabin

Table 5 presents the data for use of Navy recreation centers. The results indicate that there are some differences between men and women in their use of recreation center activities.

Table 5. Use of Navy Recreation Center by Gender and Active Duty Status

	ENLISTED		OFFICER	
Facility/Service	**Male**	**Female**	**Male**	**Female**
Recreation room	77%	74%*	62%	56%*
Music/TV lounges	75%	78%*	40%	29%*
Organized social activities	44%	45%	63%	64%
Classes/seminars	29%	37%*	39%	37%
Arts, crafts, and models	27%	16%*	36%	37%

Note: A significant difference in use by male and female active duty personnel (within enlisted/officer category) was found in those marked with "*". All differences statistically significant at the $p < .01$ level.

Enlisted men and women showed several significant, but small, differences. Male enlisted were more frequent customers of recreation rooms and arts/crafts/model programs; female enlisted showed greater use of music/TV lounges and classes/seminars.

Overall, officers appeared to be more similar to each other in their patterns of recreation center use than enlisted. One difference was the higher percentage of men who use the music/tv lounges compared to women.

All groups showed some gender differences in their rank ordering of the top five recreation center activities.

Table 6. Rank Ordering of Top Five Activities for the Recreation Center

Male-Enlisted	Male-Officer
1. Recreation room	1. Organized social activities
2. Music/TV lounges	2. Recreation room
3. Organized social activities	3. Music/TV lounges
4. Classes/seminars	4. Classes/seminars
5. Arts, crafts, and models	5. Arts, crafts, and models
Female-Enlisted	**Female-Officer**
1. Music/TV lounges	1. Organized social activities
2. Recreation room	2. Recreation room
3. Organized social activities	3. Arts, crafts, and models
4. Classes/seminars	4. Classes/seminars
5. Arts, crafts, and models	5. Music/TV lounges

Table 7 summarizes the importance ratings for 28 different leisure activities. The results indicate that men/women and enlisted/officer personnel have many of the same priorities in leisure activities.

For instance, all four groups indicate their favorite leisure activities include going to the beach, amusement parks, bicycle riding, running/jogging, trips/tours, plays/shows/concerts, and the movies. However, regardless of active duty status, women preferred such activities as plays/shows/concerts and trips/touring more than their male counterparts.

Table 7. Top 10 Leisure Activities by Gender and Active Duty Status

Male-Enlisted		Male-Officer	
Beach	69%	Beach	78%
Amusement	52%	Running/jogging	68%
Fishing	51%	Bicycle riding	60%
Bicycle riding	46%	Plays/shows/concerts	55%
Running/jogging	45%	Trips/touring	54%
Trips/touring	44%	Amusement parks	48%
Movies	42%	Hiking/backpacking	46%
Plays/shows/concerts	41%	Movies	43%
Hiking/backpacking	39%	Fishing	41%
Auto hobby	39%	Sailing/power boating	40%

Female-Enlisted		Female-Officer	
Beach	77%	Beach	79%
Amusement parks	69%	Plays/shows/concerts	75%
Plays/shows/concerts	61%	Trips/touring	70%
Shopping	61%	Bicycle riding	69%
Trips/touring	59%	Running/jogging	62%
Dancing	55%	Hiking/backpacking	57%
Bicycle riding	50%	Amusement parks	55%
Movies	48%	Shopping	53%
Listening to music	45%	Dancing	45%
Running/jogging	43%	Snow skiing/boarding	44%

The 10 most important MWR facilities/services, from a list of 17 offerings that are available at most Navy installations, are presented in Table 8. The most important programs included the fitness center, info/tickets/tours/, outdoor recreation, and the gym/courts/fields. The results indicate that active duty personnel generally consider the same programs/services to be important, regardless of gender or officer/enlisted status. All groups rated the fitness center, the gym/courts/fields, and info/tickets/tours as the most important MWR facilities/services. On the other hand, only enlisted men included the auto hobby shop among their top 10, only enlisted women included special events, and only officer men felt golf courses were very important.

Table 8. Ten Most Important MWR Facilities/Services by Gender and Active Duty Status

Male-Enlisted		Male-Officer	
Fitness center	70%	Fitness center	81%
Gym/courts/fields	67%	Gym/courts/fields	76%
Info/tickets/tours	60%	Info/tickets/tours	66%
Outdoor recreation	56%	Swimming pools	55%
Auto hobby shop	46%	Outdoor recreation	45%
Child development	44%	Golf	41%
Swimming pools	43%	Child development	39%
Movie theater	42%	Equipment rental	38%
Equipment rental	39%	Youth recreation	33%
Youth recreation	37%	Movie theater	32%

Female-Enlisted		Female-Officer	
Fitness center	82%	Fitness center	87%
Info/tickets/tours	66%	Info/tickets/tours	73%
Gym/courts/fields	60%	Gym/courts/fields	64%
Child development	57%	Swimming pools	60%
Outdoor recreation	52%	Child development	53%
Movie theater	49%	Outdoor recreation	45%
Youth recreation	49%	Youth recreation	40%
Swimming pools	45%	Movie theater	37%
Library	40%	Library	35%
Special events	39%	Equipment rental	31%

Priorities of Navy in terms of what they look for in a recreation facility or program are presented in Table 9. All respondents said they wish to have fun and to relax when deciding where they will spend their leisure time. Enlisted respondents said that low cost was an important consideration for them when deciding on a recreation facility or program; officers said physical fitness was their most important consideration

Table 9. When deciding where you will spend your leisure time, what do you look for in a recreation facility or program?

Male-Enlisted		Male-Officer	
To have fun	64%	Physical fitness	65%
Low cost	59%	To have fun	64%
To relax	58%	To relax	63%
Be with friends	47%	Low cost	55%
Be outdoors	47%	Be with family	53%
Physical fitness	46%	Be outdoors	52%
Be with family	44%	Be with friends	42%
Get away from home	43%	Meet people	21%
Avoid boredom	36%	Develop a skill	20%
Meet people	34%	Advertised discounts	20%
Develop a skill	24%	Get away from home	20%
Advertised discounts	23%	Avoid boredom	16%

Female-Enlisted		Female-Officer	
To have fun	71%	Physical fitness	67%
Low cost	61%	To have fun	67%
To relax	59%	To relax	65%
Be with friends	56%	Low cost	56%
Get away from home	49%	Be outdoors	52%
Physical fitness	45%	Be with friends	49%
Be outdoors	45%	Be with family	40%
Meet people	41%	Meet people	28%
Be with family	40%	Develop a skill	25%
Avoid boredom	40%	Advertised discounts	25%
Advertised discounts	28%	Get away from home	21%
Develop a skill	20%	Avoid boredom	18%

Finally, Table 10 presents the ratings of importance of several factors that affect use of Navy MWR recreation facilities/programs. There are virtually no differences between men and women or enlisted and officer personnel in why they choose to use on-base recreation facilities/programs. Cost, convenience, and a desire to be with friends are the most important factors influencing their decisions.

Table 10. Generally speaking, why do you use on-base recreation facilities/programs?

Male-Enlisted		Male-Officer	
Costs less	60%	Costs less	68%
More convenient	43%	More convenient	53%
Be with friends	37%	Be with friends	31%
Esprit de Corps	14%	Esprit de Corps	26%
Better than off-base	13%	Better than off-base	14%
Female-Enlisted		**Female-Officer**	
Costs less	58%	Costs less	65%
More convenient	44%	More convenient	52%
Be with friends	38%	Be with friends	30%
Better than off-base	10%	Esprit de Corps	18%
Esprit de Corps	9%	Better than off-base	10%

Conclusion

The analyses presented here suggest that men and women have similar motivations and interests when pursuing recreation/fitness activities. Yet their actual use of sports and fitness facilities/services indicates both similarities and differences. Are these differences due to actual preferences or to some of the constraints discussed in Chapter 2? Or are they the result of past experience and familiarity with certain activities? Other chapters in this report will further address factors that influence active duty members' use of Navy MWR programs. Nevertheless, interest in fitness, sports, and outdoor recreation suggest these as prime areas for interventions designed to facilitate gender integration in one Navy's active duty force.

References

Caliber Associates (1985). *Project "Smart Compass": Assessment tools for Navy recreational services managers.* Fairfax, VA: author

Culbertson, A. L. (1994). *Leisure Needs Assessment Survey Navy-wide results.* San Diego, CA: Navy Personnel Research and Development Center.

Culbertson, A. L. (1995). *Leisure Needs Assessment (LNA) System User Manual.* San Diego, CA: Navy Personnel Research and Development Center.

Culbertson, A. L., Hill, D., & Thomas, P. J. (1995). *Use and satisfaction with MWR facilities/services: Are there differences*? Paper presented at the Annual Meeting of the American Psychological Association, New York, New York.

Culbertson, A. L., & Olmsted, M. (1996). *Leisure Needs Assessment FY95 Navy-wide report.* San Diego, CA: Navy Personnel Research and Development Center.

Chapter 4

Modeling Components of Fitness Use and Organizational Outcomes

by Amy L. Culbertson, Waymond Rodgers, Murrey G. Olmsted, and Patricia J. Thomas

The DoD downsizing efforts over the past several years have created tough times for Morale, Welfare, and Recreation (MWR) programs because of the heightened demand for a limited number of dollars. The result is a renewed focus on those MWR programs that are thought to contribute to the effectiveness of the command and service members' quality of life (Department of Defense, 1996; 1995; Department of the Navy, 1997; Tobin, 1993). MWR professionals have often faced a challenge of demonstrating the importance of their programs to key organizational outcomes, such as retention. To this end, this chapter will use modeling technology to demonstrate how Navy fitness programs impact on several outcomes.

All the military services provide MWR facilities and services for a variety of reasons, such as to encourage top physical fitness, to provide positive leisure time experiences, and ultimately to improve active duty members quality of life (QOL). Access to the multitude of MWR facilities and services is one of the major benefits to active duty members, and is often used to assist in recruiting individuals into the services. It is also believed that providing MWR facilities and services impacts on military members' readiness, and encourages them to want to remain in the service (i.e., retention).

Recent competition for funding has increased to pressure to determine if assumptions about providing MWR benefits do truly impact on important outcomes to the military services, such as quality of life, readiness, and retention. Past research has demonstrated that Navy MWR facilities and services positively influence decisions to remain the service (Rodeheaver, Orthner, Howe, & Zimmerman, 1988). Ongoing research in the Marine Corps is attempting to demonstrate the influence of MWR on not only retention, but also the personal readiness and quality of life of the active duty member (Kerce, 1995).

Research in the civilian world has explored the connections between job satisfaction, life satisfaction, and quality of life (London, Crandall, & Seals, 1977; Rain, Lane, & Steiner, 1991). Initial research in this area looked at just the relationship between work satisfaction and life satisfaction, with researchers disagreeing on the nature of this relationship (Chacko, 1980; Keon & McDonald, 1982; Lounsbury, Gordon & Bergermaier, 1982; Near, Smith, Rice, & Hunt, 1983). Other researchers have viewed work and life satisfaction as independent constructs that contribute to a third outcome, one's quality of life (London, Crandall, & Seals, 1977).

Studies looking at the latter relationship have found that both work and leisure do independently contribute to quality of life, and that this relationship is moderated by demographic variables (London, Crandall, & Sears, 1977). They also found that leisure variables were better predictors of quality of life than job-related variables. "The results of this study demonstrate that non-job-related variables can be more important to a full life than job satisfaction for many subgroups of the population," (London, Crandall, & Sears, 1977, p. 333).

In both academic and applied literature, models of decision making have proven useful in determining the steps and strategies that decision makers emphasize before making final choices. Decision making is defined here as a multi-phase, information processing function in which cognitive and social processes are used to generate a set of outcomes. A decision making paradigm is applied here to better understand how active duty members use of MWR fitness center facilities and quality ratings of those facilities impact their decisions regarding satisfaction with MWR, and ultimately their general satisfaction with Navy life.

This model is in part based on a decision making model developed by Rodgers and Housel (1987). The decisions or outcomes of particular interest were both individual and organizational in nature: how perceptions of quality impact decisions of satisfaction with Navy MWR, and how satisfaction with Navy MWR influences decisions regarding intentions to remain in the Navy. Figure 1 shows a graphical representation of the model to be tested.

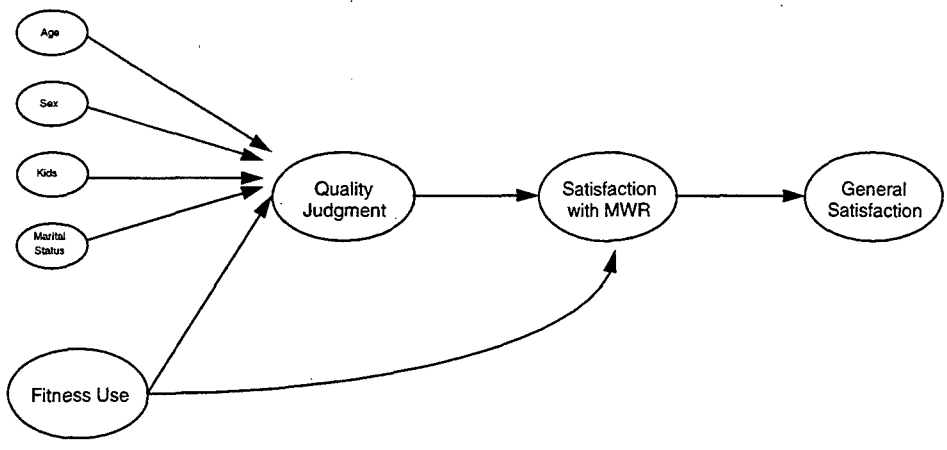

Figure 1. Proposed model of use, satisfaction, and retention.

The conceptual model predicts that demographic variables defining customer segments and fitness use information would be related to quality judgements of fitness facilities and services. The model also predicts that quality judgments of fitness facilities and services are likely to be causally related to overall satisfaction with MWR: the higher the quality, the higher satisfaction. Finally, it is predicted that overall satisfaction with MWR is causally related to satisfaction in general, measured in terms of satisfaction with one's free time, satisfaction with one's life, and intentions to remain in the Navy. It is important to note that at each step in the model, a positive or negative experience or attitude is expected to affect later attitudes. Table 1 summarizes the survey questions used with each of the constructs described above.

Method

The Navy Leisure Needs Assessment (LNA) Survey provided the data used in the development of the model. The LNA survey instrument, sample, and administration are described in Chapter 3 of this report. Models were tested separately for enlisted and officer personnel, for life style, organizational life, and other factors affecting quality of life for these two groups often are quite different. As it relates to this study, gender was of particular interest to determine if there were differences in the relationships between use, quality, and satisfaction for men and women. In addition, the relationship between perceptions of quality and satisfaction were of particular interest, for demonstrating a causal relationship would encourage continued efforts to increase quality of Navy MWR facilities and services.

Model Constructs

All of the variables of each of the model constructs are summarized in Table 1. As shown in Figure 1, the model included several demographic variables of interest to this study, namely age, sex, whether the respondents had children under 18 living with them (i.e., kids), and marital status. These demographic variables were included for it was hypothesized that these variables have a large influence on active duty personnel's use of fitness equipment and programs.

Past Navy MWR customer surveys have identified customer segments previously not recognized, such as active duty women, whose use of Navy MWR facilities and services differ distinctly from men (Culbertson, Hill, & Thomas, 1995). Since the focus of this study was on facilitating the integration of women in the Navy, sex was another important variable to include in the model. Navy MWR has historically considered age, marital status, and whether members have children as critical variables for segmenting customers groups for programming and planning purposes.

The model construct Fitness Use was measured by averaging responses on use of 15 MWR fitness facilities, activities and services. It is made up of 4 components: individual fitness, team sports, fitness classes, and sports competitions. Overall, this construct represents a wide variety of types of activities and experiences available at Navy MWR sports and fitness centers around the world.

The dependent constructs of the model were measured as follows. The Quality Judgment construct was a composite of satisfaction ratings with 16 quality characteristics of sports and fitness centers (8 measures for facilities, and 8 measures for services). These quality characteristics were one's that had been identified through an extensive review of the literature on quality as being critical variables regardless of the product or service being delivered to the customer (Parasuraman, Zeithaml, & Berry, 1988, 1994).

The satisfaction with MWR construct was comprised of satisfaction with the variety of leisure activities offered, the cost of Navy MWR sponsored activities, the amount of coed activities/programs, as well as intention to continue to use or recommend MWR facilities/services in the future.

Table 11. Summary of Variables in the Model

Background Characteristics	
Age	How old are you?
Sex	Are you: ___ male ___ female?
Kids	Do you have children living with you?
Marital	What is your current marital status?
Fitness Use	During the last year, how often did you use the on-base:
Individual fitness activities	Weight training equipment
	Aerobic equipment
	Free weights
	Swimming pool
	Whirlpool spa
Team sports	Racquetball courts
	Tennis courts
	Basketball courts
	Playing fields
Fitness classes	Aerobics/wt training class
	Swim/scuba class
Sports competitions	Intramural sports competition
	National/regional sports competitions
Quality Judgment	
Facilities	Overall, how would you rate the FACILITIES at this sports and fitness center?
Service	Overall, how would you rate the SERVICE at this sports and fitness center?
Satisfaction with fitness	Overall, how satisfied are you with this sports & fitness center?
Satisfaction with MWR	
Variety	Overall, how satisfied are you with the VARIETY of leisure activities available on-base?
Cost	Overall, how satisfied are you with the COST of Navy-sponsored leisure activities?
Coed	Overall, how satisfied are you with the amount of Navy COED (men and women) recreation activities?
Continue	I will continue to use the Navy's MWR facilities/services.
General Satisfaction	
Free time	In general, how satisfied are you with your free time activities?
Life	In general, how satisfied are you with your life?
Career intention	Which of the following BEST describes your career intentions at this time?

Analysis of the Model

To analyze the conceptual model, causal modeling procedures were applied to the survey data. The statistical procedures for causal modeling are calculated in two distinct steps. First, covariance among the observed variables (the actual questions from the survey) are linked to unobserved (or latent) constructs through a factor analytic model. Second, the causal relationships among these latent constructs are specified through path analysis. The end result is a test of the model and a set of statistics that describe how well the theoretically predicted (conceptual) model fits the actual data (Rodgers & Housel, 1987; Rodgers, 1992).

A number of well studied measures of causal model fit have been developed in the literature over the past few years' (Bollen, 1989). These include such tests as the chi-square significance test, comparative goodness-of-fit indices (CFI), and the normed and nonnormed fit measures (NFI and NNFI) that assess model validity (Bentler, 1990, Bollen, 1990). The normed and non-normed fit indices are the most often used statistics when testing conceptual models; NFI values range between 0 and 1, while the NNFI values may exceed 1. The NNFI may be compared to the NFI to determine the degree of error introduced by small-sample size (James, Mulaik, & Brett, 1982). These tests were all conducted to measure how well the proposed model matched the data.

Results

Structural Model

The following is a description of the structural equations that were used to test each of the enlisted and officer models. The first equation represents the effects of age, gender, marital status, children, and fitness use on judgment (y_1); the second equation represents the effects of fitness use and judgment on satisfaction with MWR (y_2); and the third equation represents the effects of satisfaction with MWR on satisfaction in general (y_3). The structural equations for each stage of the model tests are:

$$y_1 = b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + \varepsilon$$
$$y_2 = b_6X_5 + b_7y_1 + \varepsilon$$
$$y_3 = b_8y_2 + \varepsilon$$

These equations are similar to standard multiple regression equations, each representing the relationship of a number of predictors to a specified outcome. Specifically, the first equation indicates that b_1 value for the effect of age on y_1 (quality judgment) is the effect of age after having controlled for b_2 (gender), b_3 (marital status) b_4 (children) and b_5 (fitness use) variables in the equation. The second equation shows the b_6 value for the effect of fitness use on y_2 after having controlled for b_7 (quality judgment). Finally, the third equation shows the b_8 (quality judgment) value for the effect of satisfaction with MWR on y_3. Both the officer and enlisted models were tested using the same structural equations presented above, since the models were hypothesized to be similar.

Model Tests

The maximum likelihood statistic (MLH) was used to estimate the enlisted and officers' models using the computer program LISREL 7 (Joreskog & Sorbom, 1993). Analysis of the descriptive statistics for this data set indicated that there were no significant deviations from the assumptions for testing the causal model with MLH in LISREL. For both enlisted and officer personnel, the models proposed and tested were identical. For the chi-square tests, significant differences between the proposed models for enlisted and officers and the data were found. Due to large sample size effects, the chi-square test must be viewed with caution (Rodgers, 1991). Therefore, other tests were used in addition to depict the overall model fit. In both models, the normed fit index (NFI), non-normed fit index (NNFI), and comparative goodness of fit index (CFI) values all surpassed the 0.90 level, indicating that the proposed models fit the data at an acceptable threshold (Bentler & Bonett, 1980).

Confirmed Model for Enlisted

In the analysis of the enlisted model, only the background variables of Age and Sex achieved a statistically significant influence ($p \leq .05$) on the Quality Judgment construct, as is indicated by the asterisks (*) on the beta weights (β) with arrows from those constructs pointing to the Quality Judgment construct (see Figure 2). The background variables of having children (referred to as the Kids construct in Figure 2) and Marital Status were not significant, and thus did not significantly influence decisions made about the quality of MWR facilities and services. Fitness use also had a significant impact on quality judgment of the sports and fitness centers, as is indicated by the asterisk (*) on the beta weight (β) from the fitness use construct to the quality judgment construct.

In the second equation, both Fitness Use and Quality Judgment had a statistically significant relationship ($p \leq .05$) with Satisfaction with MWR, indicated by the asterisk (*) on the beta weight (β) from the Quality Judgment construct to the Satisfaction with MWR construct. Finally, in the third equation, satisfaction with MWR had a statistically significant influence on general satisfaction, indicated by the asterisk (*) on the beta weight (β) from the Satisfaction with MWR construct to the General Satisfaction construct.

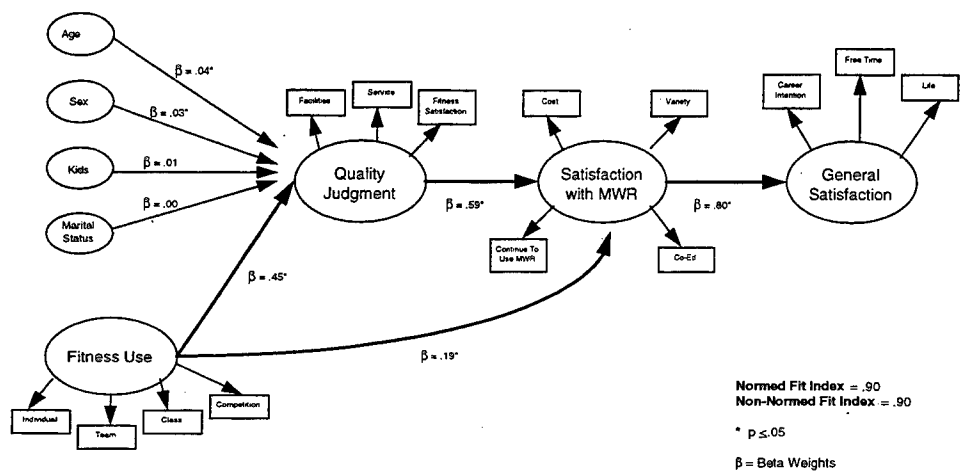

Figure 2: Confirmed model for enlisted.

R^2 is a rough measure of the amount of variance in the outcome variable that is explained by the equation. The R^2 for the first equation (Quality Judgment) was 0.39, the second equation (Satisfaction with MWR) was 0.27, and the third equation (General Satisfaction) was 0.13. These results indicate that age, sex, and fitness use were predictive of Quality Judgments of Navy MWR sports and fitness centers. R^2 for the first equation (Quality Judgment) explained more variance in the data than did the other factors in the second (Satisfaction with MWR) and the third equation (General Satisfaction) in the enlisted model.

Confirmed Model for Officers

In the analysis of the proposed officer model, only fitness use significantly influenced quality judgments ($p \leq .05$) (see Figure 3). Thus none of the

demographic variables influenced Quality Judgments of MWR. In the second equation, both Fitness Use and Quality Judgment had a statistically significant relationship to Satisfaction with MWR ($p \leq .05$), indicated by the asterisks (*) on the beta weights (β) from the Fitness Use and Quality Judgment constructs to the Satisfaction with MWR construct. Finally, in the third equation, Satisfaction with MWR had a statistically significant relationship to General Satisfaction with Navy life ($p \leq .05$), indicated by the asterisk (*) on the beta weight (β) from the Satisfaction with MWR construct to the General Satisfaction construct..

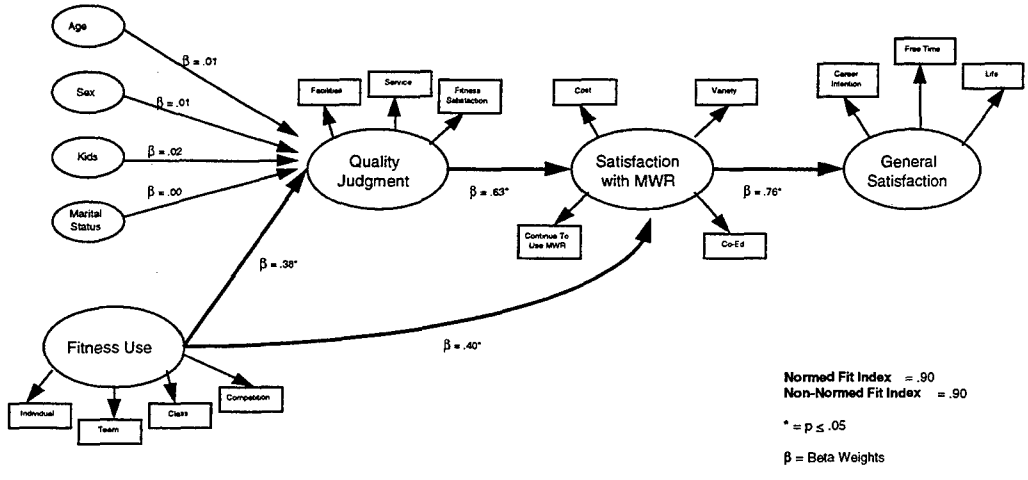

Figure 3: Confirmed model for officers.

For the officer model, the R^2 for the first equation (Quality Judgment) was 0.001, the second equation (Satisfaction with MWR) was 0.51, and the third equation (General Satisfaction) was 0.30. The R^2 for the second equation, Satisfaction with MWR, accounted for a greater percentage of the variance in the data than did the first or third equations. These results indicate that the background variables basically had no influence on Navy officer's ratings of quality of sports and fitness centers, MWR, or life satisfaction. This may be because the officers are a more homogenous group than enlisted in terms of background/demographic characteristics.

Conclusions

The implications of the present study are important for a number of reasons. Most importantly, the model demonstrated a causal link between the use of

Navy MWR fitness, satisfaction with MWR, and ultimately satisfaction with one's life, free time, and intentions to remain in the Navy. Many Navy policy makers have believed that Navy MWR does contribute to key bottom line indicators, but rarely has the data been available to actually demonstrate this link. The testing of this model shows that fitness use does impact on one's intentions to remain in the Navy.

The findings also stress the need to segment MWR customers on demographic characteristics for enlisted personnel, who are the predominant users of Navy MWR facilities and services. In particular, certain variables not considered in the past, such as gender, need to be added to the list of key customer segmentation variables so as to better understand the customer group. This is particularly true as the Navy continues to diversify and the percentage of women in the service continues to increase. Delivery of fitness programs and services that satisfy the needs of all active duty members requires knowledge of who are the consumers.

Another very important finding is that the results confirm the causal relationship between quality and satisfaction. Intuitively, we believe that if quality increases, satisfaction will increase. This model confirmed that relationship for both enlisted and officer personnel. Thus dollars invested to improve the quality of MWR facilities and services makes sense if one wants to impact customers satisfaction with Navy MWR, and ultimately satisfaction with other key outcome variables.

Lastly, the model demonstrates that satisfaction with MWR influences general satisfaction, as measured by satisfaction with life, satisfaction with free time activities, and intention to remain in the Navy. This finding suggests that MWR fitness programs contribute to the decision of active duty members to stay in the service. In times of fierce competition to retain the best and the brightest, the model confirms that investing in Navy MWR facilities and services will impact on key outcomes policy makers wish to influence.

MWR fitness use significantly influences one's satisfaction and intentions to remain in the Navy.

Navy MWR recognizes fitness facilities and services as the core of their programming efforts. The data presented here demonstrate that dollars spent on military fitness translate into important individual and organizational outcomes; namely, that MWR programs, in particular fitness, significantly influence the satisfaction of our military forces.

Taken together, the model helps us to understand the important factors that can guide and increase our awareness of the use of fitness/recreation facilities. The model combined background variables, such as age and

gender, with quality and customer satisfaction concepts, to help explain, understand, and predict future decisions made by Navy personnel, namely their satisfaction with their life and desire to remain in the service. Finally, the analysis approach demonstrated how complex relationships between MWR programs and important outcomes variables can be combined into a single model that can assist Navy leaders help when facing hard funding choices regarding quality of life programs for Navy personnel.

References

Bentler, P.M. and Bonett, D.G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin, 88*, 588-606.

Bollen, K.A. (1989). *Structural equations with latent variables*. New York: Wiley.

Bollen, K.A. (1990). Overall fit in covariance structural models; Two types of sample size effects. *Psychological Bulletin, 107*, 256-259.

Chacko, T. I. (1980). Job and life satisfaction: A causal analysis of their relationships. *Academy of Management Journal, 26*, pp. 163-169.

Department of Defense. (1996). Department of Defense Morale, Welfare, and Recreation Strategic Plan. Washington, DC: Author.

Department of Defense. (1995). *Department of Defense Instruction 1015.10, Subj: Programs for military morale, welfare, and recreation (MWR)*. Washington, DC: Author.

Department of the Navy. (1997). *Navy MWR quality of life master plan.* Washington, DC: Author.

James, L. R., Mulaik, S. A., & Brett, J. M. (1982). *Causal analysis.* Beverly Hills, CA: Sage.

Joreskog, K.G. & Sorbom, D. (1993). *New features in LISREL 8.* Chicago: Scientific Software.

Kerce, E. (1995). *Quality of life in the U.S. Marine Corps* (NPRDC TR 95-4). San Diego, CA: Navy Personnel Research and Development Center.

Keon, T. L., & McDonald, B. (1982). Job satisfaction and life satisfaction: An empirical evaluation of the interrelationship. *Human Relations, 35,* 167-180.

London, M., Crandall, R., & Seals, G. W. (1977). The contribution of job and leisure satisfaction to quality of life. *Journal of Applied Psychology, 62,* 328-334.

Lounsbury, J. W., Gordon, S. R., Bergermaier, R. L., & Francesco, A. M. (1982). Work and nonwork sources of satisfaction in relation to employee intention to turnover. *Journal of Leisure Research, 14,* 141-163.

Near, J. P., Smith, C. A., Rice, R. W., & Hunt, R. G. (1983). Job satisfaction and nonwork satisfaction as components of life satisfaction. *Journal of Applied Social Psychology, 13,* 126-144.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L.. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing, 64*(1), 12-40.

Parasuraman, A., Zeithaml, V. A., & Berry, L. (1994). Reassessment of expectations as a comparison standard in measuring service quality: Implications for further research. *Journal of Marketing, 58,* 111-124.

Rain, J. S., Lane, I. M., & Steiner, D. D. (1991). A current look at the job satisfaction/life satisfaction relationship: Review and future considerations. *Human Relations, 44*(3), 287-305.

Rodeheaver, D. G., Orthner, D. K., Howe, C. Z., Zimmerman, L. I. **(1988).** Recreation and the retention decisions of armed forces personnel. *Leisure Sciences, 11,* 201-216.

Rodgers, W. (1991). Evaluating accounting information with causal models: Classification of methods and implications for accounting research. *Journal of Accounting Literature, 10,* 151-180.

Rodgers, W. (1992). The effects of accounting information on individuals' perceptual processes. *Journal of Accounting, Auditing and Finance,* 7, 67-96.

Rodgers, W. & Housel, T. (1987). The effects of information and cognitive processes on decision making. *Accounting and Business Research*, 69, 67-74.

Tobin, P. E. (1993). Statement of Rear Admiral Paul E. Tobin, Jr., Assistant Chief of Naval Personnel for Personnel Readiness and Community Support. *Military Clubs and Recreation, pp. 23-27.*

Chapter 5

Exercise Behavior Aboard a Combatant U. S. Navy Ship

by Michael J. Schwerin, LT, MSC, USNR

This study is intended to be a baseline examination of exercise behavior among shipboard Navy men and women. Women have served aboard auxiliary Navy ships as integrated members of the shipboard work force since 1978. This study provides an examination of data collected from the first Navy combatant ship to have women as integrated members of the crew.

As of August 31, 1995, approximately 8,033 women were serving aboard U.S. Navy ships, excluding hospital ships. Of those, approximately 19% of the female shipboard personnel in the Navy served aboard combatant ships while 81% served aboard auxiliary ships (Bureau of Naval Personnel, Women's Policy Division, 1995). The term, *combatant* ship and *auxiliary* (or non-combatant) ship is a description of the role a ship or class of ships may have in naval operations.

Examples of combatant ships include: aircraft carriers, battleships, cruisers, destroyers, frigates, submarines, and amphibious warfare ships, while examples of auxiliary ships include: command ships, tenders (submarine and destroyer), ammunition, supply, fleet support, and repair ships (Noel, 1989). Auxiliary ships replenish combatant ships with ammunition, stores, and fuel while they are underway. Because of their role as mission support, auxiliary ships spend more time coordinating with supply centers in-port than operating at sea.

The purpose of this study was to provide a baseline examination of exercise and stress among men and women aboard a combatant ship. The relationship between exercise variables, stress variables, and certain demographic variables are presented. In addition, a case study for a shipboard exercise program that builds group cohesion among male and female shipboard personnel is offered.

Method

Subjects

Participants in this study were part of a larger study looking at the health effects among women on combatant ships. These Navy personnel were serving on the USS DWIGHT D. EISENHOWER (CVN 69). Subjects were matched on the following four variables: race, age, rank/rate, and work environment. Eighty-eight men and 90 women provided data for this segment of the study (N = 178). The mean age of the subjects was 27.31 years (men = 27.55, women = 27.90). There were 122 white respondents and 54 non-white respondents.

Instrument

A special-purpose survey was developed to collect information on exercise activities, constraints to exercise, and stress aboard ship. Demographic items included in these analyses were enlisted/officer status, sex, and racial/ethnic group. Quality of life items asked participants, "How do you feel about your health and physical condition?" and "How do you feel about your life as a whole?" These responses were measured on a 7-point Likert scale where category "1" indicates "terrible" feelings and category "7" indicates "delighted" feelings.

Stress items of particular relevance asked participants, "Of the stress that you experience, how much comes from problems or concerns with the lack of recreational activities aboard ship?" and "Of the stress that you experience, how much comes from problems or concerns with my life as a whole?" These responses were measured on a 5-point Likert scale where "1" indicates "no stress experienced" and "5" indicates an "extreme amount" of stress experienced.

Exercise items of particular relevance asked participants "During the past 30 days, on the average, how often did you exercise by running, continuous walking, bicycling, aerobic exercise, or swimming?" Frequency of exercise was indicated by the average weekly number of times participating in this exercise activity (0 to 7 times a week).

Health and exercise promotion items of particular relevance asked participants, "During the past 12 months the following were readily available to me if needed: Adequate exercise time, Adequate exercise space, and Adequate exercise equipment." Responses for these items were indicated on a 5-point Likert scale where "1" indicated "strongly agree" and

"5" indicated "strongly disagree." These items were subsequently reverse coded where "1" indicated "strongly disagree" and "5" indicated "strongly agree."

Procedure

Study participants were selected for participation based on the matching criteria (age, race, rank/rate). Due to the size of the sample of males and females available (men being much more abundant aboard ship than women), the female study participant was enrolled first.

All females aboard the USS EISENHOWER were solicited for participation in this study. Based on the matching criteria, two appropriate matching male participants were selected for each female participant, one being selected as an alternate. Participants were asked to attend a group survey administration session. A researcher read a set of standardized instructions prior to completion of the survey. The exercise and health related items were administered with several other health-related instruments. Testing time for the entire survey was approximately 45 minutes.

Results

Fitness is a major component in managing stress aboard ship.

In summary, there are no differences in the self-report ratings of quality of health and physical condition, self-report ratings of stress due to recreational activities and life as a whole, availability of exercise time, availability of exercise space, availability of exercise equipment, self-report of running in the past 30 days, self-report of exercise walking in the past 30 days, self-report of biking (including stationary bicycling) in the past 30 days, and self-report of aerobic exercise in the past 30 days between: (1) officer and enlisted respondents, (2) male and female respondents, and (3) between white and non-white respondents.

In an analysis of exercise items by rank (officer, enlisted), MANOVA analyses indicate a significant effect (Wilks Lambda = 0.87, $df = 11,168$, $p < .05$). Significant differences were found on items that examined the subject's self-report rating of quality of health and physical condition, self-report rating of quality of life as a whole, frequency of walking (for exercise), and availability to exercise equipment.

Results indicate that officers feel significantly more positive about their health and physical condition, and significantly more positive about their life as a whole compared to enlisted. Enlisted personnel report exercising by walking significantly more than officers, and report significantly greater availability of exercise equipment (See Table 12).

Table 12. MANOVAs of Exercise Variables by Rank

Exercise Item	Mean Officer	Mean Enlisted	*F*-ratio
How do you feel about your health and physical condition (1=terrible, 7=delighted)?	6.08 (0.68)	5.44 (1.14)	3.89*
How do you feel about your life as a whole (1=terrible, 7=delighted)?	6.38 (0.65)	5.72 (1.11)	4.52*
Of the stress that you experience, how much comes from problems or concerns with: The lack of recreational activities aboard ship. (1 = no stress, 5 = extreme stress)	1.69 (0.75)	2.12 (1.43)	1.13
Of the stress that you experience, how much comes from problems or concerns with: My life as a whole.	1.61 (0.77)	1.91 (1.10)	0.90
During the past 30 days, on the average, how often did you exercise by running (0=never, 7=7times/week)?	2.08 (1.19)	1.78 (0.95)	1.14
During the past 30 days, on the average, how often did you exercise by walking?	1.23 (0.44)	2.08 (1.19)	6.46*
During the past 30 days, on the average, how often did you exercise by bicycling?	2.00 (1.08)	1.53 (0.83)	3.61
During the past 30 days, on the average, how often did you exercise by aerobic exercise?	1.23 (0.60)	1.38 (0.84)	0.38
During the past 12 months the following were readily available to me if needed: adequate exercise time. (1 = strongly agree, 5 = strongly disagree)	3.15 (1.34)	3.47 (1.26)	0.76
During the past 12 months the following were readily available to me if needed: adequate exercise space.	2.77 (1.36)	3.22 (1.31)	1.39
During the past 12 months the following were readily available to me if needed: adequate exercise equipment.	2.85 (1.57)	3.54 (1.18)	3.94*

*Indicates groups are significantly different ($p < .05$).
Table displays means and standard deviations in ( ).
Officer $n = 13$, Enlisted $n = 167$.

MANOVAs were conducted on exercise items between males and females. Multivariate results indicate no statistically significant differences between males and females (Wilks Lambda = 0.90, $df = 11,168$, $p > .05$). Univariate tests of significance demonstrate significant group differences on the frequency of running for exercise, with men reporting this activity significantly more than women ($F = 4.64$, $df = 1,176$, $p < .05$; See Table 13).

MANOVAs were conducted on exercise items between white (Caucasian) and non-white (African American, Asian-American, Filipino, Asian-American, Native American). Results indicate significant race differences at the multivariate level (Wilks Lambda = 0.84, $df = 11,164$, $p < .001$). Significant differences at the univariate level were indicated on items that examined the subject's self-report of stress due to the lack of recreational activities aboard ship ($F = 8.44$, $df = 1,174$, $p < .001$), and perceived availability to adequate exercise equipment ($F = 6.54$, $df = 1,174$, $p < .01$). Non-whites indicate significantly more stress due to lack of recreational activities aboard ship, and significantly less perceived availability of adequate exercise equipment (See Table 14).

Table 13. MANOVAs of Exercise Variables by Gender

Exercise Item	Mean Male	Mean Female	*F*-ratio
How do you feel about your health and physical condition (1=terrible, 7=delighted)?	5.60 (1.23)	5.36 (1.04)	2.09
How do you feel about your life as a whole (1=terrible, 7=delighted)?	5.81 (1.10)	5.74 (1.10)	0.14
Of the stress that you experience, how much comes from problems or concerns with: The lack of recreational activities aboard ship. (1 = no stress, 5 = extreme stress)	2.23 (1.54)	1.95 (1.25)	1.76
Of the stress that you experience, how much comes from problems or concerns with: My life as a whole.	1.93 (1.14)	1.83 (1.02)	0.41
During the past 30 days, on the average, how often did you exercise by running (0=never, 7=7times/week)?	1.95 (1.03)	1.64 (0.89)	4.64*
During the past 30 days, on the average, how often did you exercise by walking?	1.90 (1.11)	2.14 (1.23)	1.96
During the past 30 days, on the average, how often did you exercise by bicycling?	1.51 (0.91)	1.62 (0.81)	0.73
During the past 30 days, on the average, how often did you exercise by aerobic exercise?	1.42 (0.88)	1.32 (0.78)	0.62
During the past 12 months the following were readily available to me if needed: adequate exercise time. (1 = strongly agree, 5 = strongly disagree)	3.31 (1.29)	3.57 (1.25)	1.87
During the past 12 months the following were readily available to me if needed: adequate exercise space.	3.17 (1.35)	3.19 (1.28)	0.01
During the past 12 months the following were readily available to me if needed: adequate exercise equipment.	3.52 (1.28)	3.46 (1.16)	0.13

*Indicates groups are significantly different ($p < .05$).
Table displays means and standard deviations in ( ).
Officer $n = 88$, Enlisted $n = 90$.

Table 14. MANOVAs of Exercise Variables by Race

Exercise Item	Mean White	Mean Non-white	*F*-ratio
How do you feel about your health and physical condition (1=terrible, 7=delighted)?	5.57 (1.07)	5.24 (1.27)	3.23
How do you feel about your life as a whole (1=terrible, 7=delighted)?	5.78 (1.04)	5.74 (1.25)	0.04
Of the stress that you experience, how much comes from problems or concerns with: The lack of recreational activities aboard ship. (1 = no stress, 5 = extreme stress)	1.90 (1.21)	2.56 (1.70)	8.44**
Of the stress that you experience, how much comes from problems or concerns with: My life as a whole.	1.85 (1.06)	2.00 (1.13)	0.69
During the past 30 days, on the average, how often did you exercise by running (0=never, 7=7times/week)?	1.73 (0.90)	1.89 (1.08)	1.04
During the past 30 days, on the average, how often did you exercise by walking?	1.92 (1.10)	2.26 (1.32)	3.17
During the past 30 days, on the average, how often did you exercise by bicycling?	1.51 (0.80)	1.72 (0.98)	2.31
During the past 30 days, on the average, how often did you exercise by aerobic exercise?	1.42 (0.89)	1.26 (0.68)	1.37
During the past 12 months the following were readily available to me if needed: adequate exercise time. (1 = strongly agree, 5 = strongly disagree)	3.45 (1.25)	3.44 (1.30)	0.00
During the past 12 months the following were readily available to me if needed: adequate exercise space.	3.03 (1.32)	3.41 (1.24)	3.12
During the past 12 months the following were readily available to me if needed: adequate exercise equipment.	3.31 (1.28)	3.81 (1.01)	6.54*

*Indicates groups are significantly different ($p < .05$).
**Indicates groups are significantly different ($p < .01$).
Table displays means and standard deviations in ( ).
White $n = 122$, Non-white $n = 54$.

Shipboard Integrated Exercise Program -- "Muscle-robics"

A shipboard exercise model.

In the process of gathering survey data on fitness activities aboard ship, a unique program was observed—Muscle-robics, a shipboard exercise program, developed by Carlton Patrick McGrath. The program developer used his professional and personal experience aboard ship to develop a fitness program that allowed men and women of varying fitness levels to participate in a group exercise program (C. P. McGrath, personal communication, November 1, 1996). The exercise routines described here take approximately 90 minutes to complete. The following is guidance concerning how to design and implement a co-ed exercise program for active duty members aboard ship.

Goals of the Instructor

- Be able to do the workout yourself.
- Monitor the participants. Provide all participants with feedback on whether they are doing the exercises correctly. Be sure not to provide only men or only women with feedback.
- Do not force goals. Make the goal doing one of every exercise and exercising the entire duration of the course.
- Encourage teamwork by having people spot one another (e.g., on pull-ups).
- Take time to help the participants learn the exercises. An instructor's rapport can help set a positive tone for teamwork and camaraderie among the students.

Goals of the Class

- Get people to conduct part or all of workout for the entire amount of class time. Convey the message that each participant should "do it correctly" and only "do what you can."

Things to Avoid

- Don't let the class size get too large so the instructor can't know all the class members. If the class needs to grow, arrange for one fitness instructor for every 15-25 participants.
- Avoid using the Hangar Bay for exercise classes. The women do not feel comfortable being watched by the male crew and the men feel uncomfortable by their inability to perform at the same level as the instructor.
- Avoid increasing the class goals too quickly.
- Avoid increasing speed to get the workout done quicker. Allow more than enough time to complete the workout.

Outcomes

- One enlisted male asked BMSC McGrath to re-enlist him because he felt that had it not been for this exercise class, he would have been too heavy/high in body fat to stay in the Navy.
- One female officer, after consistently participating in the class, participated in a ship-wide fitness contest. She was a top performer among female and male participants.

Example Muscle-robics Classes

A listing of two Muscle-robics exercise classes follow. These classes can provide a unique shipboard exercise program. Muscle-robics was introduced aboard the USS EISENHOWER as an alternative to traditional aerobics classes. This program consists of a number of anaerobic and aerobic exercises designed to accommodate men and women at various levels of fitness. The left hand column lists the exercise and the right hand column specifies the number of repetitions suggested.

Push-Up Night

(Four count exercise except where indicated)

Exercise	Repetitions
Steam engines	10
Press/press fling	05
Right over left hamstring stretches	05
Cherry pickers	05
Up, back, over	05
Push-ups	35

Exercise	Repetitions
Squats	30
Press/press fling	05
Push-ups	25
Lunges	20
High Jack/Jill	05
Push-ups	20
Toe raises	(10L/10C/10R)
Up, back, over	05
Push-ups	15
Reverse lunges	20
High Jack/Jill	05
Press/press fling	05
Up, back, over	05
Diamond push-ups	10
Knee-ups	35 (2 count)
6" leg raises	35
Quarter sit-ups	35
Crunches	35
High-flying leg raises	70
Knee-ups	35 (2 count)
Knee rock backs	35
Knee cross-overs	20L/20R/15L/15R
Bicyclers	35
Rowers	35
Jane Fondas-lying on side, knee behind head	35L/35R
Stick twists	35 or 50
Stick twists (bend over)	15 or 25
Trunk rotations	5x5 count each side
Press/press fling	05
Push-ups	30
Squats	30
High Jack/Jill	05
Push-ups	20
Lunges	20
Up, back, over	05
Push-ups	15
Toe raises	30 (10L/10R/10C)
Press/press fling	05
Push-ups	10
Reverse lunges	20
High Jack/Jill	05
Eight-Count Bodybuilders	35
Windmills	05
Wood-choppers	05
Sit stretch	10 seconds x 4
Neck rotations	10L/10R/10L/10R; 15 up and down
Leg stretch	10 seconds x 4
Pelvic stretch	10
Push-ups	15

Pull-Up Night

(Four count exercise except where indicated; TBD = participant's self-estimated maximum repetitions)

Exercise	Repetitions
Steam engines	10
Press/press fling	05
Right over left hamstring stretches	05
Cherry pickers	05
Up, back, over	05
Pull-ups	TBD
Squats	30
Press/press fling	05
Push-ups	30
Lunges	20
High Jack/Jill	05
Pull-ups	TBD
Toe raises	(10L/10C/10R)
Up, back, over	05
Push-ups	20
Reverse lunges	20
High Jack/Jill	05
Pull-ups	TBD
Press/press fling	05
Up, back, over	05
Diamond push-ups	10
Knee-ups	35 (2 count)
6" leg raises	35
Quarter sit-ups	35
Crunches	35
High-flying leg raises	70
Knee-ups	35 (2 count)
Knee rock backs	35
Knee cross-overs	20L/20R/15L/15R
Bicyclers	35
Rowers	35
Jane Fondas-lying on side, knee behind head	35L/35R
Stick twists	35 or 50
Stick twists (bend over)	15 or 25
Trunk rotations	5x5 count each side
Press/press fling	05
Push-ups	30
Squats	30
High Jack/Jill	05
Pull-ups	TBD
Lunges	20
Up, back, over	05
Push-ups	15

Initiative by one individual shows how innovative fitness programs can be implemented.

Exercise	Repetitions
Toe raises	30 (10L/10R/10C)
Press/press fling	05
Pull-ups	TBD
Reverse lunges	20
High Jack/Jill	05
Eight-Count Bodybuilders	35
Windmills	05
Wood-choppers	05
Sit stretch	10 seconds x 4
Neck rotations	10L/10R/10L/10R; 15 up and down
Leg stretch	10 seconds x 4
Pelvic stretch	10
Pull-ups	TBD

Discussion

Generally, findings indicate that men and women's exercise habits aboard ship did not differ dramatically. The only gender difference appears in the frequency of running per week. Men report running significantly more frequently per week than women do. This finding might be due, in part, to the availability of other aerobic exercise equipment (e.g., Stairmaster) aboard this particular ship, which women may have used significantly more than men did.

Although there were no significant differences between groups on self-report of aerobic exercise, this result may be confounded by the "aerobic exercise" not being operationally defined. "Aerobic exercise" could have consisted of running, aerobic bicycle, or other aerobic exercise.

In comparisons between officer and enlisted personnel, officers feel significantly better about their life as a whole and their health and physical condition than enlisted do. Intuitively, this finding appears to reflect the differential environments of officers and enlisted. Generally, officers have more senior shipboard positions, allowing them greater control over their environment. Also, enlisted generally have a lower standard of living aboard ship. Relative to officers, there is a much greater concentration of enlisted personnel assigned to berthing space and dining facilities.

MANOVA results between white and non-white shipboard personnel indicates that non-white personnel sampled report significantly greater satisfaction with shipboard exercise equipment. They also report significantly more stress associated with the lack of shipboard recreational activities. This seems to indicate a desire for additional shipboard recreational activities, including exercise activities. Additional research could identify activities that might enhance the shipboard recreational opportunities.

The Muscle-robics exercise classes outlined here illustrate the design and implementation of an innovative fitness class to assist with the integration of women on combatant ships. Obviously the lack of evaluation data precludes our ability to state the outcomes of participation in the co-rec exercise classes. Yet pre- and post-class surveys could easily be implemented to tap individuals' attitudes perceptions about team building, unit cohesion, and attitudes towards the opposite sex.

Although these findings represent data collection aboard just one combatant, the information provided begins to describe patterns of exercise behavior among afloat men and women. The findings of few differences actually encourage the perception of similarity between active duty men and women in terms of physical condition. It also suggests a common framework on which to build gender integrated fitness programs aboard ship. The Muscle-robics exercise classes demonstrate how innovative co-recreational fitness activities can be implemented aboard ship. With the monitoring of such kinds of programs, the influence on perceptions of acceptance of women, unit cohesion, and the effectiveness of the crew to work together can be better understood.

References

Bureau of Naval Personnel, Women's Policy Division. *Memorandum of 3 September 1995, Subj: Ships with Women Assigned.* Washington, DC: Author.

Noel, J. F. (Ed.) (1989). *Knight's Modern Seamanship,* Eighteenth Edition. New York: Van Nostrand Reinhold.

Chapter 6

Sports and Recreation at the U.S. Naval Academy

by Patricia J. Thomas

The decision to conduct interviews at the U.S. Naval Academy (USNA) as part of this study was based on three factors. First, the USNA represents a formerly all-male environment that was required to integrate women. In the 20 years since the first women were admitted, lessons would have been learned about what helps or hinders the integration process. Second, women midshipmen who are on varsity teams have significantly lower attrition rates than non-athletes (Women Midshipmen Study Group, 1987; 1990; 1995). This finding could indicate that sports promote the acceptance of women into military groups. Third, most of the activities sponsored by the Physical Education Department are coed, with the exception of varsity sports.

The interviews took place on 5 December 1995 at the USNA. Group interviews were conducted with personnel from the Physical Education (PE) Department, the Office of Institutional Research, and four women graduates of the USNA who have returned to train midshipmen. Individual interviews were conducted with a professor who had been a member of all three Women Midshipmen Study Groups and with the highest ranking woman officer at the USNA. The discussion that follows focuses on topical areas, rather than specific interviews.

Physical Education and Extra Curricular Activities

Organized physical activities at the USNA occur in five areas: physical education curriculum, intramural sports, club sports, varsity sports, and extra-curricular activities/brigade support activities (ECAs/BCAs). The Physical Education Department is responsible for the first three programs, whereas varsity sports come under the Naval Academy Athletic Association and ECAs/BCAs are managed by the Commandant of Midshipmen.

Physical Education Curriculum

Every midshipman must take a PE course each semester. During the first 2 years, they are required to take swimming, personal conditioning, strength training, and personal defense (boxing and wrestling). All of these classes are coed, though women and men have same-sex partners for boxing and wrestling. Most of these classes used to be single sex and had different standards for women and men. Based on a recommendation of the first Women's Midshipmen Study Group (1987), standards were made more equal than before. The staff of the PE department opined that women's achievement is greater in mixed-sex classes than in all-female classes.

Recreating together builds strong relationships and a foundation for a stronger Navy.

Intramural Sports

Companies at the USNA field teams in basketball, touch football, disc football, soccer, volleyball, field ball, racquetball, weight lifting, and softball. All of these teams are coed, though very few women play touch football. When the teams best those of other companies, they earn "sport's points," which are factored into "color points" in the annual competition to be named Color Company.

Club Sports

Club sport teams compete against teams from other institutions and may transition to varsity sports. Midshipmen organize and manage these sports, and most are coed. Currently, club sports include cycling, ice hockey, power lifting, judo, lacrosse, women's gymnastics, women's softball, women's tennis, and men's volleyball.

Varsity Sports

The USNA competes in Division I of the NCAA. By regulation, these varsity teams are single sex. The academy has women's teams in cross country, track, soccer, volleyball, basketball, swimming, sailing, and crew.

Extra Curricular Activities/Brigade Support Activities (ECA/BSA)

These two sets of activities are not necessarily physically oriented. They consist of cheerleading, debate team, drum and bugle corps, drama, war gaming, ski club, and honor committee. They differ in that the BSAs are in direct support of the USNA, and participants may be excused from classes to take part in them. Also, ECAs may transition to club sports after 4 years. Midshipmen who are involved in either activity earn color points for their company.

Role of Sports and Recreation in Integration

Early Period

When women first entered the USNA in 1976, their physical capabilities were underestimated. The obstacle course, which all 4th Classmen had to conquer, was gender specific and initially graded from A to F. Men were aware of the lower standard for women and resented the fact that they (women) were not being physically challenged to the extent that men were.

The Academy creates a gender fair PE program.

The physical education curriculum also differentiated by gender. Only a few classes were coed, and women did not participate in boxing or wrestling. Actually, many of these first women were not prepared for the physical demands of the USNA. Their lower caloric need had not been anticipated, and weight gains resulted. According to women officers who had been at the USNA at that time, derisive remarks were frequently made about the cheerleaders because of their chubbiness and short hair (i.e., not like the more glamorous cheerleaders of the academy's collegiate rivals).

Changes to Physical Education

There were two primary reasons to revise the physical training of women at the USNA. The first was the resentment of male midshipmen, ostensibly because women had it easier than they did; this was actually a symptom of the larger issue of a generalized resistance to women at the academy (Holm, 1982). The second impetus was the

high attrition rate of women who were not varsity athletes. In the class of 1980, for example, 95 percent of the women varsity letter winners graduated, as compared to the overall 68 percent graduation rate of women. According to the most recent Women Midshipman Study Group (1995), participation in varsity sports continues to be associated with a high graduation rate even among women who are not lettered.

To reduce men's resentment, the obstacle course was made gender fair.[1] It is no longer graded and has been renamed, the "confidence" course. The wall and shelf, which had to be climbed to pass the course, had been made lower for women than men. Instead of being gender specific, it became height specific. Thus, anyone 5 foot 6 inches or less uses the lower obstacle. An additional effort to counter resentment over differing standards was undertaken in the classroom. A component on aspects of male/female physiology that result in differences in strength, endurance, and speed was added to the 4th class leadership curriculum.

Athletic women are better assimilated into the USNA.

The success of women athletes at the USNA led to their recruitment in high schools, just as has been done with men for decades. More women's varsity sports were added to the program, while most intramural and club teams became coed. In addition, women's and men's PE classes were integrated.

Everyone that was interviewed felt that athletic women are better assimilated into the USNA than non-athletes. In response to questioning as to why this is occurring, most endorsed the interpretation of the first Women Midshipman Study Group (1987) that varsity sports provide a support system for women. Being on a varsity team permits interactions among women from various companies, and presents one of the few opportunities for women to shed their minority status.

One interviewee felt that success in sports gives women credibility as potential naval officers. Many men see male physical fitness standards as indicators of officer fitness. That is, they believe that these standards are directly related to tasks they will be required to perform in the Navy. Therefore, women who do not meet the same standards will become inferior officers.

[1]Gender-fair standards require the same level of relative intensity or effort from women and men. This level is established by testing large samples of each gender and setting the minimum qualifying score at a point in each distribution so that equal proportions of women and men can pass.

An alternative explanation is that women athletes bring a measure of glory to the USNA, by winning intercollegiate competitions, that all midshipmen can identify with. Thus, they gain more acceptance from men than do women non-athletics. The record attendance (broke NCAA record) at the women's 1995 Navy-Army soccer game provides support for this assumption. All of these hypotheses (i.e., provides a support system, credibility, or winning team) assume a direct effect upon attrition.

Ways in Which Gender Integration is Promoted at USNA

Team sports research suggests a circular relationship... cohesion increases success, success increases satisfaction, and satisfaction increases cohesion.

Throughout Plebe summer, team building is fostered by stressing squad performance as opposed to individual performance. The Squad Combat Course, according to the women who have gone through it, is a great team builder. A scenario is developed that requires every member of the 10-to-12-person squad to paddle a rubber raft and portage it around or over obstacles. They are to infiltrate "hostile" territory and return together to the boat house. It is a timed competition that often requires the strongest members to drag or carry the weakest over the finish line.

The emphasis on group effort also permeates the competition among companies for the annual honor (and perquisites) of being designated Color Company. Since women are members of most plebe squads and all companies, their performance counts and it behooves other squad or company members to support them.

To the extent possible, gender-based rules have been done away with. Common sense dictates that berthing, bathrooms, and uniforms be sex specific. Assuring that there are no solo women in classrooms and separate male and female glee clubs also are exceptions in which gender is taken into consideration. Federal laws applying to women in the military were barriers to gender-neutral treatment until 1993.

When Section 6015, USC was abolished and the General Unrestricted Line Officer[2] designator was disestablished, assignment policy became gender neutral except for the submarine service. Separate lists of men and women first classmen for use in service selection are no longer required. Thus, another source of male resentment for what was seen as preferential treatment of women was removed.

[2]Most women officers who were not in the Nurse Corps had this occupational designator. It was not available to male first-class midshipmen during service selection.

References

Holm, J. (1982). *Women in the military: An unfinished revolution.* Novato, CA: Presidio.

Women Midshipmen Study Group. (1987). *The integration of women in the brigade of midshipmen.* Annapolis: United States Naval Academy.

Women Midshipmen Study Group. (1990). *Report to the* superintendent *on the assimilation of women in the brigade of midshipmen.* Annapolis: United States Naval Academy.

Women Midshipmen Study Group. (1995). *The status of women in the brigade of midshipmen.* Annapolis: United States Naval Academy.

Chapter 7

Interviews and Focus Groups with Navy MWR Professionals

by Amy L. Culbertson

Individuals in MWR headquarters and field operations have much to contribute to meeting the objective of gender integration in the Navy. Their knowledge provides a foundation from which to draw ideas when designing and implementing innovative programming to facilitate gender integration among our active duty forces. Their practical experiences also provide lessons learned of what not to do when developing new fitness and recreation activities for mixed-gender commands.

The information presented in this chapter summarizes the views of a number of different groups of MWR professionals. First, a focus group with practitioners from the fleet and overseas captured their reactions to the concept of facilitating gender integration through MWR recreation activities. These practitioners also provided practical advice from their years of working in the fleet implementing MWR programming ideas.

The second source of information in this chapter were interviews conducted with several MWR professionals whose specialty is afloat recreation and the management of aircraft carrier recreation. The experiences of these individuals are particularly relevant to the challenge of integrating women into previously all-male combat ships.

The third source of information is a description of how the innovative efforts by a Navy MWR fitness trainer has changed the composition of active duty members using the Navy fitness center facilities. This example reveals how an environment where men and women work out together on a regular basis can be created, assisting in breaking down perceptual barriers about men and women working together.

The last source of information comes from managers at Navy MWR headquarters, who provided their thoughts on whether MWR programs can be used to address key organizational outcomes, in this case gender integration.

Focus Group with MWR Practitioners

The gathering of Navy MWR professionals at the Armed Forces Recreation Society Meeting in October of 1995 provided an unique opportunity to obtain opinions regarding the role of Navy recreation in facilitating gender integration among our active duty force. Individuals who had designed both shore and shipboard recreation programs were part of the group. The group also included several women who, during their decade of experience, have implemented award-winning recreational programs.

COs need guidance from MWR personnel on how to structure recreation activities.

Several members of the group came from overseas bases where Navy MWR fitness programs and recreational activities are integral to active duty members' quality of life and attitudes toward the Navy. In addition, the percentage of women is often higher at these overseas sites than typically found in afloat units, sometimes reaching 25 percent of active duty personnel at the command.

Group members stated that recreational programming must take into consideration gender differences, and that typically men and women are drawn to different types of recreational activities. For example, when one practitioner planned a rock climbing trip, only men signed up to participate. But when the event was modified to include both hiking and rock climbing, women also signed up. This experience emphasized the importance of designing new recreational activities that will be of interest to both men and women, rather than trying to fit women (or men) into existing programs that don't appeal to both.

Group members discussed co-recreational intramural teams, but did not feel that they would necessarily facilitate gender integration. Many commands already have established co-recreational intramural teams for softball, volleyball, and soccer. Rules exist for coed teams; thus, sites do not have to ponder how to set up and manage these teams. But intramural sports can present a number of constraints, since the requirements to qualify and compete in leagues are very specific in terms of the number of male/female players, and the roles played by team members (e.g., co-recreational volleyball specifies a member of each gender must hit the ball at least once before it goes over the net).

Some afloat commands have grappled with mixed gender recreational activities by coming up with very detailed rules regarding appropriate clothing or behavior. For example, at one overseas location active duty members were not allowed to dance with each other when attending Family Members' Parties held onboard ship. Group members felt that these events can actually fuel negative attitudes about the opposite sex

by emphasizing the differences between men and women, instead of bringing men and women together as a team.

Advice from the Focus Group Members

Several professionals stressed that commanding officers, particularly those aboard ship, need guidance from MWR personnel concerning how to structure recreational activities that build positive social relationships. Focus group members also emphasized the importance of conducting a needs assessment before designing fitness or recreational activities, and they stressed that the planning stage was critical to positive team outcomes.

Commanding Officers aboard ship need guidance from MWR personnel.

Several group members recommended that existing programs should NOT be modified or eliminated to accommodate co-recreational activities. For instance, all-male softball teams and leagues should not be replaced with co-recreational teams. Resentment in the loss of activities because of the entry of women is very likely to result.

Members highlighted the importance of marketing recreational events. Programmers located in large metropolitan areas face competition from other recreational events and options. Thus, analyzing what competitors offer is important to designing programs that offer value not provided elsewhere.

When MWR practitioners find that only one gender is signing up for recreational activities or events, they need to determine why the program is not appealing to both men and women. This information could be gathered by conducting individual interviews or focus groups with active duty personnel at the command.

One member, who had been in the MWR profession for many years, recommended focusing on programs that are already a requirement when considering how to facilitate gender integration through recreation. Fitness programs are a natural choice to accomplish this goal for not only are they required, but they also increase physical conditioning, and can encourage team building and team cohesion.

Focus group members voiced concern over attitudes regarding male and female relations that are established before individuals come into the Navy. Moreover, experiences in boot camp and initial training can reinforce attitudes that are difficult to change. The need for team building between the sexes while in boot camp was apparent from their

discussions. Lastly, practitioners acknowledged the lack of training regarding gender issues in their professional development, and suggested that this be added to their professional development program.

Using the Outdoor Recreation Experience to Build Teams

Civilian companies have used outdoor recreational activities to encourage team building among employees. One of the focus group members had applied this model to Navy outdoor events. This professional commented that outdoor recreational activities do not necessarily result in long-term lasting results once the activity is over. He stressed that certain components need to be present to produce positive and enduring team outcomes, including:

- Perceived "high risk" of the activity (i.e., dangerous)
- Need for the team members to work together to succeed
- Different roles for different team members
- Non-competitive nature of the activity
- Assignment of dominant personalities to different teams

Design events where team members contribute in unique ways to the overall performance of the team.

Shorter, 1-day events that don't require an overnight experience are thought to have less of an effect on team building and cohesion than longer lasting events. Ideally, all personnel in the work group/unit would go through a several-day outdoor recreational experience together.

Having an entire Navy work group leave their command for several days may be difficult from a logistical stand point, but it could be part of the training program for the work group. Shorter recreational activities that involve the entire work group, such as sponsoring running events or other special events, can be used to build teamwork in an environment different from the daily workplace.

This example highlights innovative ways of adapting effective recreation-based, team-building experiences to the Navy environment. MWR professionals designing outdoor recreational activities need to structure events that tap the unique skills individuals can offer for the good of the team. When team members value each person's unique contribution to a common goal, unit cohesion will follow.

Interviews with Afloat Recreational Experts

Several interviews were held with MWR personnel who served as Afloat Recreation Specialists or managers of recreation programs on aircraft carriers. They had some practical tips for other MWR personnel who are designing recreational activities for men and women aboard ships.

MWR activities aboard ship are often planned by a recreational committee. This committee should include both men and women to increase the likelihood that events reflecting the interests of all crew members are sponsored. It may be a challenge to get people involved in the committee, for often this collateral duty is not seen as desirable.

COs are seeking guidance on how to structure recreational events so that positive gender relations occur.

For any shipboard recreational program, a dress code for appropriate wear when using fitness equipment aboard ship should exist. Separate hours for men and women to work out should not be scheduled, because this practice fosters perceptions of women and men being different and the belief that they will not be able to work together.

Afloat recreational specialists strongly recommended that events that emphasize sexuality be eliminated, such as the shipboard version of The Dating Game and dances aboard ship. They also recommended that talent show segments be screened before they are performed for the crew. One manager emphasized that COs should not withhold recreational activities or events because of fear of fraternization. Rather, care needs to be used in the design of these programs so that they emphasize positive relations between individuals and de-emphasize gender or sexuality.

In conclusion, afloat MWR professionals felt that COs are seeking guidance on how to structure recreational events so that positive gender relations occur. However, MWR professional capabilities are not being promoted enough to COs as a resource, along with their ability to develop recreation programs that can contribute to the mission of the organization. MWR professionals also recommended that MWR personnel going onboard ship complete, at a minimum, the Fleet Recreation Course before they report for duty. This was thought to develop their professional skills, and encourage a positive perception among COs that MWR practitioners can provide sound advice.

The Fleet Recreation Management Desk Reference (Navy Morale, Welfare, and Recreation Training Unit, 1995) has an Appendix listing many award-winning fleet recreation programs. This list can be used to

encourage the implementation of innovative recreation programs. Building on recreational activities that are successes in this arena is undoubtedly a useful approach. Currently there is a process whereby Navy commands can submit to MWR Headquarters their best recreation programs, and these ideas are then shared with others. The continued dissemination of innovative programming ideas is encouraged, with special emphasis being on providing those aboard ship with resources which facilitate positive interpersonal outcomes.

Facilitating Gender Integration in the Fitness Center

The efforts of a fitness trainer at a Naval Submarine Base[1] demonstrate how innovative efforts can boost the number of active duty women exercising in the gym, side-by-side with men. Implementing programs similar to this could attract more active duty women to Navy fitness centers. Although such programs may not directly promote gender integration, research discussed in this report suggests that men and women exercising together are likely to learn that their similarities outweigh their differences.

The program this fitness trainer has developed includes an assessment of current physical state, fitness goal setting, a personalized workout program aimed towards achieving fitness goals, training on the proper use of the equipment, and ongoing monitoring and feedback. This program is available to anyone who is interested, and is not just for women.

The program starts with establishing what individuals want to accomplish in the way of fitness goals. At this time, baseline exercise habits and body measurements are recorded. In addition, emphasis is placed on eating habits in addition to ones exercise and activity routines. Personnel are provided with forms to track what they eat, and are given nutritional information to translates their intake into calories, protein, carbohydrates, and fat.

The second part of the program focuses on an exercise program that is tailored and helps people work towards and achieve their goals. The fitness trainer creates a program of aerobics and strengthening exercises. He also shows each person how to properly use the aerobic, weight training, and free weight equipment. This step is particularly

[1] Program developed by Mike Shanks, Fitness Trainer, Point Loma Athletic Club, Naval Submarine Base, San Diego, CA.

important for women, who typically are not familiar with fitness equipment, and may feel intimidated by the fitness center.

The third part of the program focuses on implementing and monitoring fitness activities and eating habits. Each individual has a folder with forms for recording the exercises completed when working out. If any problems occur in implementing the program (e.g., lower back pain from use of a particular machine), the fitness trainer modifies the exercises or equipment used. The importance of the modification process cannot be emphasized enough, for often women experience negative effects early on and then conclude that the entire fitness program is not for them.

Men and women exercising together are likely to learn that their similarities outweigh their differences.

The fitness trainer periodically checks with each person to ask how they are doing and whether any difficulties are being experienced with the program. This is one of the key components of implementing a successful fitness program for both men and women, namely customer service and support.

It should be noted that the advice provided by this fitness trainer applies to building a fitness program for any active duty member who is not familiar with the equipment and methods of conditioning, whether they are men or women. In the few years that the fitness trainer has been at his command, the number of women using the fitness center on a regular basis has increased dramatically.

Lastly, the fitness trainer commented on the fact that active duty men typically don't sign up and participate in aerobic exercise classes. Men often do not believe that they need aerobic exercise, and focus their fitness efforts on building muscle using weight training equipment and free weights. Trainers need to educate men that aerobics are part of a complete fitness program. Although the number of men using aerobic equipment has increased, aerobic exercise classes are still predominantly made up of women. To increase male participation, this fitness trainer suggested that changes are needed in how aerobic exercise classes are designed and marketed to appeal to both men and women.

In summary, the experience and recommendations from this model are:

- Implement programs similar to the one described here to increase the number of women exercising side-by-side with men

- Do not use gender to segregate people into classes and fitness center use times; instead, use indicators of fitness level, such as being over the recommended body fat limits, to divide people into customer segments

- Practice unique design and marketing techniques to attract both men and women to fitness centers and classes

Managers at Navy MWR Headquarters

Individual interviews were conducted with managers at MWR headquarters who oversee the many MWR programs implemented throughout the Navy. These professionals typically have held a variety of MWR jobs on ships and at shore commands around the world before moving to their headquarters positions.

Most of the managers thought the idea of using fitness and recreation to help integrate women a novel one. They did feel that MWR recreation and fitness has positive effects, not only on active duty members' quality of life, but also on their feelings about their command and their coworkers.

The manner in which MWR activities are implemented to assist with gender integration is believed to be critical to the effectiveness of the effort. In particular, managers emphasized that existing programs should be augmented to allow both men and women to participate, instead of changing existing offerings.

A manager who had been an afloat recreation specialist described a few shipboard recreational events she put together that seemed to facilitate positive relations between the sexes. While at sea, bingo tournaments attracted both men and women participants. When in port, organized historical tours and even shopping trips appealed to both genders. Other managers mentioned that organized events in ports-of-call are popular with both men and women. Moreover, such group events promote cohesion among the ship's crew.

Several managers felt that fitness and team recreation are appropriate interventions for helping women integrate into work groups. Themes stated in other interviews and focus groups with MWR professionals were echoed, such as designing events where members contribute in unique ways to the overall performance of the team. War games were

cited as an example of how men and women can bring unique capabilities to a team effort that encourages group cohesion and effectiveness.

In terms of fitness programs, a balanced offering was suggested to satisfy the needs of all crew members (e.g., a combination of fitness equipment, free weights, aerobics equipment, and aerobic classes). Also, attention should be paid to the subtle ways in which aspects of programs convey unanticipated messages. Thus, team names, such as the A-Team and the B-Team, which can communicate that the B-Team is inferior, should be avoided.

The manner in which MWR activities are implemented to assist with gender integration is critical.

Most of the managers felt that separate hours in the fitness centers for men and women are not conducive to integration. They stated that women who regularly work out and know how to use the fitness equipment are comfortable with the co-recreational gym. Women who have little familiarity with the equipment and have not used a fitness center may need coaching, an orientation class, or a fitness trainer as discussed previously.

The issue of different physical standards for men and women was addressed by one manager who felt that they devalued individuals based solely on sex. Men and women are working side by side in many occasions doing the same job, and they should have the same physical standards. He stated that current physical standards need to be evaluated to determine whether they are appropriate for the job, regardless of the gender of the person doing that job.

A manager who had worked in Navy MWR for several decades said that we need to design recreational activities that create a level playing field for all sailors. Team activities designed to utilize the skills and strengths of everyone are most conducive to increasing group cohesion, and ultimately gender integration.

In summary, MWR professionals felt that COs are seeking guidance concerning fitness and recreation activities that will encourage gender integration. Most believed that recreational activities do help sailors get to know each other and form positive feelings about working with the opposite sex. The focus group touched on a critical variable to the success of any intervention—that integration is not just a physical state, it is also a "mindset," a cognitive state.

The importance of front-end programming of MWR activities was emphasized. Professionals need to be conscious of the gender element

of programming, and how the design and marketing of the activity/event will be viewed by men and women. Women may shun recreational activities like white-water rafting and rock climbing for a variety of reasons, often due to just the lack of past exposure or experience. Yet other activities may initially seem unappealing to men, again because of lack of exposure or other reasons, but could be appealing if marketed effectively. Finding the happy medium is a challenge, but not an impossible one.

References

Navy Morale, Welfare, and Recreation Training Unit. (1995). Award winning fleet recreation programs. *Fleet Recreation Management Desk Reference Appendix C.* Patuxent River, MD: Bureau of Naval Personnel.

Chapter 8

Technical Design Elements of MWR Programs

by John P. Harden, CLP

The theory of symbolic interactionism has been receiving increasing attention as an approach to understanding recreation and leisure behavior (Glancy & Little, 1995; Kelly, 1987; Kuentzel, 1990; Lee, 1990; Rossman 1995; & Samdahl, 1992). Symbolic interaction examines the social process of human behavior in the face-to-face interactions that constitute the bulk of recreation and leisure. Iso-Ahola (1980) has pointed out that understanding recreation/leisure participation requires understanding the dialectic nature of these experiences. That is, recreation/leisure participation includes both changing individuals and changing social environments in which individuals interact.

Symbolic interaction theory explains how individuals structure their participation and experience recreation/leisure occasions (Samdahl 1988, 1992). Emphasizing the social outcomes of recreation provides a means for understanding how recreation could be used to impact gender integration and other diversity issues in the Navy.

Symbolic Interaction Theory

Symbolic interaction theory assumes that people learn their concepts of self and other basic symbols in their environment through their interactions with others (Denzin, 1975, 1978). Similarly, objects in an individual's world obtain meaning based on actions that individuals take toward them. One's experience is the process of defining and redefining self and objects in an ever-changing environment. Interaction is symbolic because it involves the manipulation of symbols and meanings based on one's experience with others.

Blumer (1969) distinguishes three slightly different assumptions of symbolic interactionism.

- The first premise is that human beings act toward things on the basis of the meanings that the things have for them. These things include everything that is perceived--physical objects, such as trees or chairs; other human beings, such as friends or enemies; institutions, such as school or a government; guiding ideals, such as independence or honesty; activities of others, such as commands or requests; and the situations that an individual encounters in his/her daily life.
- The second premise is that the meaning of such things is derived from, or arises out of, the social interaction that one has with others.
- These meanings are handled in, and modified through, an interpretive process used by people in dealing with the things they encounter..

(Blumer, 1969, p.2).

This theory helps us understand how individuals structure recreation and interpret its effects.

Symbolic interaction theory is relevant to programmed recreation because it examines the social process of human behavior in face-to-face interactions. The theory provides a focus for recreation professionals on factors relevant to recreation experiences that will impact positively on gender relationships and other diversity issues in the work place.

Several points need to be developed for a full explanation and understanding of the implications of the theory for MWR programming: the recreation experience cycle, the nature of leisure objects, deriving meaning from interaction, and how interaction is produced.

The Recreation Experience Cycle (REC)

It is useful to conceptualize the recreation experience as occurring in three distinct phases--the anticipation phase, the participation phase, and the reflection phase. Often MWR programmers deal only with the participation phase of recreation, and do not consider or plan interventions for the total recreation experience. This oversight may cause the recreation specialist to miss important opportunities for facilitating social outcomes, such as gender integration in the Navy.

Anticipation Phase

Satisfaction with fitness/recreation depends upon fulfilling participants' expectations about the experience. During the anticipation phase we must either discover those expectations or try to manipulate them. For example, Skipper (1992) demonstrated that the wording of promotional flyers can influence the number of participants who register and attend an event. Similarly, a patron's expectations are influenced by how they are dealt with during phone inquiries about a program, registration procedures, and other events occurring during the anticipation phase (McCarville, 1993).

Participation Phase

There are 3 phases of the REC - anticipation, participation, and reflection.

Program leadership skills are paramount in the participation phase. Recreation specialists are individuals who succeed or fail on the basis of their personal characteristics, skills, and abilities to create and implement workable programs (Stokowski, Long, & Nuckolls, 1992). To program activities successfully, recreation professionals must understand how a program or activity is *planned* and *delivered.* Recreation happens in linear sequences; therefore, the recreation professional has to be aware of how participants move through a program. The recreation professional cannot simply expect that the program will happen on its own.

To have the most positive delivery, MWR professionals need group facilitation and team building skills training, particularly when using recreation experiences to facilitate gender integration in the Navy. It is also important that recreation specialists be trained in cultural diversity intervention methods, so their interventions can impact positively on a wide range of diversity issues.

Reflection Phase

The distribution and solicitation of evaluation information is both an important patron satisfaction activity and a source of information to use in documenting program outputs and improving future operations of a program (Little 1993, Howe 1993). Publishing photographs, league standings, game results, MWR event stories and testimonials, staging reunions, and selling tee-shirts, ball caps and other souvenirs are all interventions designed to influence the recollection phase of a recreation experience.

Thus, the symbolic interaction theory suggests a need to expand the programmer's responsibility for intervention from exclusively dealing with

the participation phase of an experience to also include the anticipation and reflection phases.

The Nature of Leisure Objects

How objects obtain meaning is very important to the social interaction theory of recreation. Objects are anything that can be indicated, pointed out, or referred to (Blumer 1969). People act toward objects on the basis of the meanings that the objects have for them; in addition, their meaning is defined and redefined through interaction. Social interaction theory discusses three categories of objects--physical, social, and abstract.

Physical objects are those that may be used in the recreation experience.

Physical objects are those that may be used in the recreation experience, such as free weights, basketballs, exercise equipment, etc. Social objects are other participants involved in the recreation experience. Abstract objects include more elusive, yet powerful forces, such as traditions, doctrines, and organizational customs. For example, ideas and customs about unit cohesion influence interactions in recreation experiences.

Recreation specialists need to attend to objects in the recreation setting/activity to ensure that desired outcomes are supported. For example, social events that involve only country music may be seen as offensive to members of certain racial/ethnic groups. Thus, providing a selection of music types endorses traditions and ideas that support diversity.

Deriving Meaning From Interaction

The meaning of objects arises out of the interaction one has with them. Meaning is not inherent in an object.

> [Symbolic interactionism] sees meaning as arising in the process of interaction between people. The meaning of a thing for a person grows out of the ways in which other persons act toward the person with regards to the thing. Their actions operate to define the thing for the person. Thus, symbolic interactionism sees meanings as social products, as creations that are formed in and through the defining activities of people as they interact.
>
> (Blumer, 1969, p.4-5).

Lee (1990) documented that recreation/leisure is situationally interpreted by individuals based on it's social context. Thus, the meaning attached to physical, social, and abstract objects changes from occasion to occasion.

How Interaction is Produced

One of the defining dimensions of leisure experiences is that individuals must be actively engaged in the joint construction of the occasion (Rossman 1995). During interactions, individuals engage in a process of interpretation by carrying on internal conversations. The meanings attributed to objects in this manner shape behavior in terms of social outcomes.

Thus recreation professionals must be concerned with how an activity or event is experienced by participants--the interaction within the event or activity. Their interventions should facilitate positive perceptions of how a recreation experience occurred, as well as positive feelings about the content of the activity or event.

MWR Programming Implications

There are three implications from this discussion that directly affect recreation professionals in their efforts to facilitate the integration of women into the Navy's active duty force.

Don't force structure and control in recreation activities.

First, Navy recreation professionals must understand how humans shape meaning and how that meaning shapes action. Recreation experiences are constructed anew each time they are experienced. A past success is no guarantee that the same combination of circumstances in the recreation experience will lead to the same outcome. Therein lies the meaning of the aphorism: The shelf-life of recreation is very short; it is consumed immediately upon manufacture.

Second, providing the desired recreation experience is sometimes difficult because of the fragility of social experiences. Recreation professionals should avoid imposing structures that are so rigid that they will interfere with participants' perceived freedom, and the focused experience needed to achieve intrinsic satisfaction. Recreation professionals can actually destroy the experience they are trying to facilitate by forcing programmatic controls and manipulations in the delivery of a recreation program.

Third, individuals always play a part in shaping interactional episodes and the meaning attached to interactions. Csikszentmihalyi (1991) emphasized this point—"It (happiness) does not depend on outside events, but rather on how we interpret them" (p. 2). Thus, optimal experience is something individuals make happen through their conscious interpretation and volitional direction of interaction. The autonomy of the individual must be respected in program development. If the recreation professional gives too much direction, the patron may not have a sufficient opportunity for involvement.

Conclusion

Individuals always play a part in shaping interactions and their meaning.

Navy recreation professionals should rely on the theory of recreation/leisure behavior to guide the development of recreation programs, activities, and events. Symbolic interaction is a theory that attempts to understand human recreation behavior at the level of the face-to-face interaction, and assumes individuals participate in the construction of social interactions and the meaning given to them.

The theory suggests that MWR recreation specialists must give increased attention to how they operate programs and how they are experienced by the patrons. Understanding how to facilitate recreation is a crucial programming concept that includes understanding how meaning is produced through interaction and its impacts on outcomes, such as gender integration among work units.

References

Blumer, H. (1969). *Symbolic interactionism.* Englewood Cliffs, NJ: Prestice-Hall.

Csikszentmihalyi, M. (1991). *Flow: The psychology of optimal experience.* New York: Harper Perennial.

Denzin, N. K. (1975). Play, games and interaction: The contexts of childhood socialization. *The Sociological Quarterly, 16,* 458-478.

Denzin, N. K. (1978). *The research act* (2nd ed.) New York: McGraw-Hill.

Glancy, M., & Little, S. L. (1995). Studying the social aspects of leisure: Development of the multiple-method field investigation model (MMFI). *Journal of Leisure Research, 27*(4), 305-325.

Howe, C. Z. (1993). The evaluation of leisure programs. *Journal of Physical Education, Recreation and Dance, 64*(8), 43-46.

Iso-Ahola, S. E. (1980). *The social psychology of leisure and recreation.* Dubuque, IA: William. C. Brown.

Kelly, J. R. (1987). *Freedom to be: A new sociology of leisure.* New York: MacMillan.

Kuentzel, W. F. (1990). *Motive uniformity across recreation activities and settings: A synthesis of the research.* Paper presented at the National Recreation and Park Association Research Symposium, Phoenix, AZ.

Lee, Y. (1990). *Immediate leisure experiences: A phenomenological approach.* Paper presented at the National Recreation and Park Association Research Symposium, Phoenix, AZ.

Little, S. L. (1993). Leisure program design and evaluation. *Journal of Physical Education, Recreation and Dance, 64*(8), 26-29, 33.

McCarville, R. E. (1993). Keys to quality programming. *Journal of Physical Education, Recreation and Dance, 64*(8), 34-36, 46, 47.

Rossman, J. R. (1995). *Recreation programming: Designing leisure experiences.* Champaign, IL: Sagamore Publishing.

Samdahl, D. M. (1988). A symbolic interactionist model of leisure: Theory and empirical support. *Leisure Sciences, 1,* 27-39.

Samdahl, D. M. (1992). The common leisure occasions. *Journal of Leisure Research, 24,* 19-32.

Skipper, B. A. (1992). The relationship between desired results and the marketing tools used in recreation programming. *Dissertation Abstracts International, 53,* 3364A

Stokowski, P. A., Long, P. T., & Nuckolls, J. S. (1992). Recreation leadership as a system of social ties. *Journal of Park and Recreation Administration, 10*(2), 67-77.

Chapter 9

Recreation Programming for Gender Integration

by Patricia J. Thomas, John P. Harden, & Amy L. Culbertson

The research and findings highlighted in this report demonstrate that recreation can lead to positive outcomes. Recreational programming that includes both women and men provides opportunities for positive individual and group outcomes, but will not alone facilitate gender integration. The program, environment, and attitudes of staff that deliver recreational activities, also influence the interpersonal and organizational outcomes.

The optimal conditions for facilitating group cohesion and gender integration in recreation are those activities that: (1) require cooperation among the members, as opposed to competition; (2) provide for meaningful, rather than casual interaction; (3) involve common goals; and (4) result in pleasant and rewarding contact. Ultimately, the benefits of successful mixed-gender recreation need to spillover into the work environment, encouraging a cultural shift in organizations that have historically been male dominated.

Probably the best way to test the impact of a variety of recreation interventions is to design recreation with gender integration goals in mind, and then evaluate the effects with implementation. The process of designing and implementing recreational programs to promote gender integration should follow a five-step sequence: assessment, staff training and education, design of inclusive programs, marketing, and evaluation. Throughout this process, the overall role of recreation in facilitating gender integration and positive attitudes within the military unit must be kept in mind.

Assessment

In the assessment phase, several questions need to be asked of the existing MWR program at the installation. Are the recreational

interests of most women at the installation similar to those of most men? Are women being included or do they feel excluded from some activities, events, and services? Are there constraints or barriers to women's participation? Only after these questions have been answered can the critical question be addressed—are the right type of activities, events, and services being offered?

Programming for gender integration follows a 5-step sequence.

Assessment data can be collected through surveys of current users and potential patrons of MWR recreation facilities. The Leisure Needs Assessment Survey (Culbertson & Olmsted, 1996) provides ideas on how to construct a questionnaire to assess recreational interests and needs. Too often programs are developed without considering those who do not use MWR recreation facilities. The assessment of the needs of all potential customers is a necessary preliminary step to planning activities that both men and women will participate in. The data collected in this phase also can serve as baseline measures for future evaluation efforts.

In addition to surveys, the assessment phase should include gathering data by means of interviews and focus groups. Observation is another relevant data collection tool, particularly for assessing aspects of the recreation environment that may constitute barriers to women's participation.

Staff Training and Education

The importance of recreational personnel in influencing positive individual and interpersonal outcomes cannot be overemphasized. Thus, training becomes a critical issue. Goals are often set by recreational specialists, but those actually delivering the program to patrons must understand these goals to assist in accomplishing them. Training also relates to the career development of MWR personnel. A cadre of trained professionals capable of serving the present and future mix of customers is an essential component of effective programs.

Training should focus on ways of ensuring that the four necessary conditions of cooperation, meaningfulness, common goals, and rewarding interactions are met. Staff members also need to be sensitized to aspects of the environment (e.g., swim suit calendars, provocative commercial wall posters, music, exercise videos) that contribute to sexism and separation of the sexes. Atmospherics, such as colors, lighting, wall decorations, and interior design, should not be overlooked as they are basic to gender neutral recreation facilities.

The symbolic interaction model proposed in this report provides a framework for designing MWR recreational programs. Thus, workshops in recreational program design and evaluation that follow the tenets of symbolic interaction are needed. These workshops could become part of the professional training of all recreational specialists. They could also be incorporated into the annual Bureau of Naval Personnel MWR training courses/workshop venue. In addition, a short overview of symbolic interactionism should be developed to introduce the technique to senior MWR field and Echelon II managers.

Training in team building is needed to develop the skills of those implementing MWR programs.

Another area of training that needs to be addressed is group facilitation. Recreational specialists may be excellent program developers, but have no experience or training in how to facilitate groups. Thus, training in team building is needed to develop the skills of those implementing MWR programs. Skill building could be incorporated in a diversity training course that sensitizes recreational specialists to the unique needs of different patron populations. In fact, many of the concepts and conclusions presented in this report apply to team building and the promotion of unit cohesion among diverse groups other than men and women, such as racial/ethnic minorities.

Designing Inclusive Programs

The challenge of designing inclusive recreational programs provides an opportunity to review the process of program design and implementation. Too often desirable outcomes are articulated, but programs are developed irrespective of the goals. The program design model summarized in Figure 4 may assist recreational professionals in the process.

Figure 4 shows the relationship between outputs and outcomes in a symbolic interaction program design model. The process illustrated begins with the end goals in mind. Outputs include the immediate social-psychological satisfactions patrons receive from engaging in a recreational activity or event. Outcomes can include interpersonal and organizational effects of the outputs, such as team cohesion, unit readiness, and the professional integration of women. Measuring complex social outcomes typically involves identifying and measuring outputs of the process that subsequently lead to outcomes. These outcomes may be long-term in nature and not be immediately obvious.

Design Goals	Design Component	Design Formats & Storyboarding
Outputs	People	**Formats**
fun		Open facility
freedom	Physical setting	Skills/knowledge
relaxation		Competition
cohesion	Leisure objects	Special interest groups
skills		Special events
fitness	Rules	Trips & outings
autonomy		Self-directed
escape	Relationships	Social outreach
adventure		
competition	Animation	**Storyboarding**
bonding		Frames
Outcomes		Transitions
gender integration		Sequences
unit cohesion		
unit performance		

Figure 4. The program design process.

As shown in Figure 4, design goals are influenced by the design components of program operation. The design formats and storyboarding suggest that programmers need to use appropriate formats to animate recreation programs. The interplay of design elements is worked out in advance of operation so that the experiences of participants will result in the desired goals.

Recreational specialists should carefully consider what the outcomes of recreation programs ought to be and consciously design and develop programs to reach those outcomes. The ability to do this separates the specialist from the technician who implements programs. The focus of recreational program design should be on identifying and addressing outputs and outcomes up front. The professional preparation of the MWR specialist is critical to this process.

Fitness Programming

One of the most important programs for both men and women is that of fitness. The open facility format of Navy fitness centers can be considered a form of programmed recreation. Creating a co-recreational fitness center that is appealing and used by both men and women will increase the opportunities for meaningful interactions between the sexes. The exposure gained by men and women exercising side by side can result in friendships that extend beyond the gym and spillover into the workplace.

Since active duty personnel must maintain a level of fitness, emphasis on this area as a means of promoting gender integration is highly recommended. The Physical Readiness Program (CNO, 1994) requires participation in a program of aerobic physical exercise at least three times a week. In addition, flexibility and muscular strength conditioning should be included. Thus, developing fitness programs like those described in Chapters 5 and 7 contributes to beneficial individual and organizational outcomes.

Co-recreational Programming

Mixed-gender activities have the greatest potential for promoting gender integration if they utilize similar or complementary capabilities of women and men, and the conditions discussed earlier exist. Obviously, sex differences in upper-body strength, body mass, and aerobic capacity (to mention a few) come into play. Few women can hold their own in football or ice hockey. Sometimes, adaptations must be introduced to accommodate women, such as equalizing the number of women on each team and requiring that they participate in a meaningful way.

Emphasis on fitness programming for gender integration is highly recommended.

In other situations, the nature of the sport is changed, such as substituting touch football for tackle football. Opinions of recreational specialists are divided on whether adaptations to highly physical sports help or hinder gender integration, however. Occasionally, the wisest choice may be to provide separate-but-equal programs to avoid undue emphasis on gender differences in athletic ability.

Recreational programming goes beyond sports, and there are many activities in which women are neither disadvantaged nor superfluous. Theater groups and mixed choruses capitalize upon gender differences, usually resulting in a "product" that is superior to single-sex efforts. Other activities, like bowling and hiking, involve a greater degree of within gender than between gender variability in abilities. Outdoor recreational activities that use a variety of different skills from group members are ideal for facilitating acceptance.

Skills Development Programming

Some women will need instruction and practice before they can become members of mixed-gender teams. Even women who have played on female inter- and intra-mural teams may have to adapt to "men's" rules and standards. Thus, the goals of skills programming are to develop the

skills of beginners and prepare athletic women for co-recreational teams. Both male and female participants can benefit from skills development programming for activities other than sports. For example, before joining a backpacking club, novices need instruction and experience on short hikes.

All-female Programming

Despite the overriding goal of gender integration, all recreational activities should not be co-recreational in nature. There still is value in single-sex recreation. Existing all-male programs that are popular and valued by men should be maintained. Since men are the primary patrons of Navy recreational facilities and services, no emphasis need be placed on all-male programming. The opposite is true for women.

Research summarized in this report identified women's leisure needs and barriers to their participation, which typically differ from those of men. Thus, unique female programming may be required. Such programming may seem counter to gender integration, but if it results in feelings of competence and increased self-confidence, spillover to the job may occur.

Additionally, when women compete successfully under the sponsorship of their military unit, as when they represent their squadron in a military marathon, men will identify with their achievements and cohesion within the unit will be strengthened. Even non-integrated recreational activities can help women overcome stereotyping and expectations regarding their role and contribution to the unit.

Implementation

The method of implementing new programs is critical to their effectiveness. Resources and personnel will be needed to design recreational programs and provide facilities/services to address team building and positive relations among men and women.

An example of one such effort is the Single Sailor Program, which has been implemented Navy-wide and generally is thought to be quite effective (MWR Division, Bureau of Naval Personnel, 1994). This program focuses on the needs of a particular customer segment, young sailors that are not married or are unaccompanied on their present tours.

Marketing

Part of designing innovative programs is being aware of the customer mix.

The elements of MWR fitness and recreation that appeal to men and women may differ. Part of designing innovative programs is being aware of the customer mix, and the varied needs and expectations of customer groups. In the past, marketing of Navy recreational programs has been cognizant of men's desires because men were the primary customers. Marketing for gender-integrated recreation needs to consider variables important to women, also.

Women want a safe environment and some need the timing of activities to be consonant with their roles as wives and mothers. Moreover, cleanliness of restrooms, showers, and locker areas are important to many women. MWR recreational specialists need to assess whether they are "in-tune" with their current patron population, which is much more diverse than in the past.

When promoting recreational programs, the skill level of the activity should be clearly described. Women's reluctance to participate in group physical activities is often due to their fear of holding back others or embarrassment over their lack of ability.

Evaluation

Although the social outcome of gender-integrated recreation is exceedingly difficult to evaluate, records of participation and anecdotal information will prove useful. Unless data are gathered and kept, it will be impossible to answer basic questions concerning what, if any, recreational activities promote gender integration. Components of the gender integration goal could be measured at the command level through the use of the Performance Standards and Measures System (PSMS) (Conklin, 1995) or other measurement systems.

Additional measures that reflect team building could be part of this evaluation process. These would be "soft" measures, consisting of participants' attitudes regarding whether recreational events or facilities/services contribute to their readiness and promote positive attitudes towards shipmates of both genders. The survey tools mentioned in Chapter 2 on team cohesion and team performance certainly could serve as effective evaluation measures.

Conclusions

The current integration of women into most active duty jobs has pushed the need for a cultural shift in the Navy. Leaders want tools that can assist them in accomplishing this shift. MWR can offer resources and a methodology to facilitate the process. By providing COs with a means of encouraging positive interpersonal and organizational outcomes, MWR can demonstrate that its programs are mission essential.

The absence of research on the role of recreation in promoting integration among dissimilar people highlights issues that need to be further explored as programs are developed and tested. How best can stereotypes and prejudices be reduced as a result of exercising, playing, and spending leisure time together? What types of recreation are most effective in fostering mutual respect and group cohesion? What are the necessary and sufficient conditions for programmed recreation to affect integration in the short and long term? The Navy could begin designing recreation activities specifically targeted to promote gender integration, and at the same time establish an evaluation process that collects data to address the issues raised above.

Gender integration is not going to happen overnight–it's a process.

The Navy's emphasis on fitness provides a natural venue for the facilitation of gender integration. A FY97 fleet initiative resulted in every ship being outfitted with fitness equipment. The Navy's Physical Readiness Policy states that commands should coordinate with local MWR Departments for use of facilities and services to satisfy the initiative (CNO, 1994). Thus, the opportunity exists for MWR to impact cohesion in mixed-gender operational units.

Recommendations

In conclusion, the following recommendations are made:

- Distribute this report to MWR Directors and Staffs for their review and application; also make the results available to afloat recreation personnel who must deliver mixed-gender recreational programs.
- Train recreational professionals in team building and group facilitation skills so they can enhance positive interpersonal outcomes; also, offer diversity training focused on gender integration and organizational change.

- Encourage commands to conduct assessments of the fitness and recreation needs of all sailors, including those who are not currently using MWR facilities/services.
- Develop inclusive programs for both women and men with particular emphasis on fitness, team sports, and outdoor recreation.
- Tailor the marketing of recreational programs to appeal to both men and women.
- Build in evaluation measures and tools to assess the impact of Navy MWR recreational programs on critical outcome variables, such as perceptions of unit cohesion and effectiveness, satisfaction with the Navy, and intent to reenlist.
- Continue to support MWR's efforts to collect and publicize innovative programming ideas; request practitioners share ideas for facilitating team building and positive gender relations.

References

Conklin, S. (1995). *The Performance Standards and Measures System (PSMS).* Washington, DC: Bureau of Naval Personnel.

Chief of Naval Operations. (1994). *Physical Readiness Program Changes (NAVADMIN 148/94).* Washington, DC: Department of the Navy.

Culbertson, A., & Olmsted, M. (1996). *Leisure needs assessment FY95 Navy-wide report.* San Diego, CA: Navy Personnel Research and Development Center.

Morale, Welfare, Recreation Division, Bureau of Naval Personnel. (1994). *The single sailor program.* Washington, DC: Author.

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